

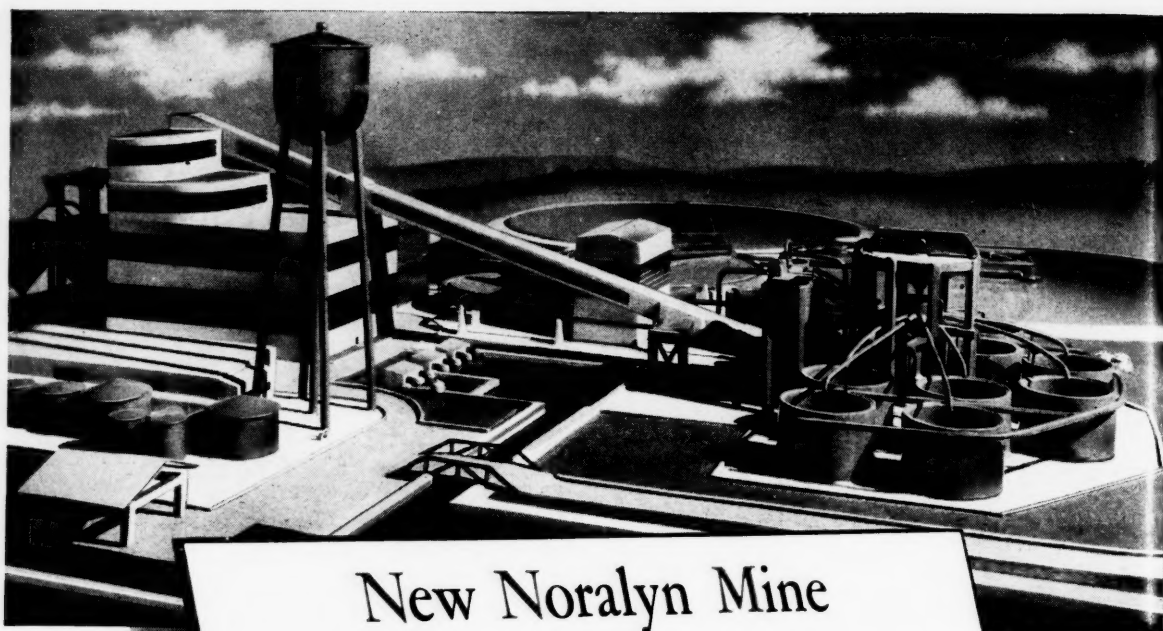
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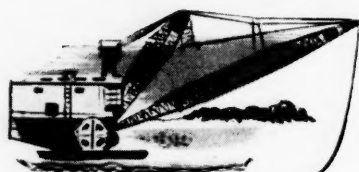
REFERENCE
DO NOT LOAN

BOOKS
SCIENCE AND INDUSTRY

AUGUST 1946



New Noralyn Mine to expand annual production of *International* Phosphate Rock



ALL COMMERCIAL GRADES

*Florida Pebble Phosphate
and*

Tennessee Phosphate Rock

TO MEET FUTURE world-wide requirements for industrial and agricultural Phosphates, International is building the largest and most modern Phosphate Rock Mine in America...the NORALYN MINE near Bartow, Florida.

In capacity, metallurgical innovations and quality of Phosphate Rock to be produced, the NORALYN MINE will be unique in the history of the industry. When it begins operation in 1947, the production of International's mines in Florida will be greatly expanded.

As the largest producer in America, International has pioneered for thirty-six years in the development of improved processes for mining and refining Phosphate Rock. With the completion of its present building program, International will be well prepared to supply a greatly increased tonnage of essential Phosphates for industry and agriculture, at home and abroad, in the years that lie ahead.

INTERNATIONAL MINERALS & CHEMICAL CORPORATION
GENERAL OFFICES: 20 NORTH WACKER DRIVE, CHICAGO 6

International MINERALS
AND CHEMICALS

MANUFACTURERS RECORD

ESTABLISHED 1882

A Publication for Executives

Volume 115

AUGUST, 1946

Number 8

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ARMY **E** NAVY

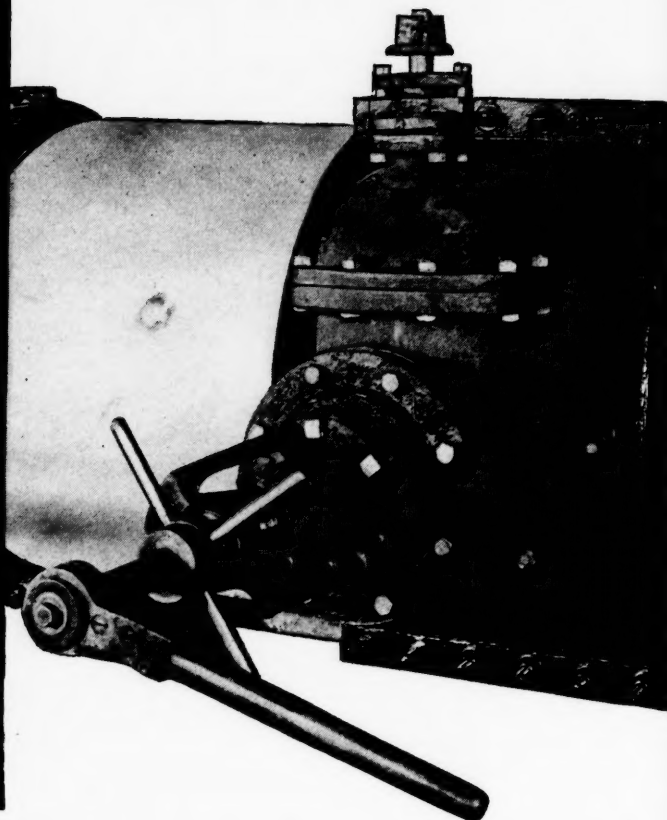
for manufacturing
metal parts requiring
— machining,
— heat treating of
alloy steels,
— precision grinding
— electro-plating!

Inquiries are invited

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BOULIGNY
INC.

CHARLOTTE, N. C.

Easily and
economically
tapped...



● Prestressed Concrete Cylinder Pipe can be readily tapped under full operating pressure. This eliminates the necessity for dewatering the line when making connections not originally contemplated at the time of construction. The work can be done by regular maintenance crews with their own equipment.

Reducers, wyes, tees and elbows are made according to standard Lock Joint Pipe design ... and

constructed to meet every type of field condition. Prestressed Concrete Cylinder Pipe may be somewhat new to you now ... but already hundreds of thousands of feet have been installed and additional hundreds of thousands of feet are under contract on major projects throughout the Western Hemisphere. In the meantime, let us help your engineers plan your next job and show you the advantages of specifying Prestressed Concrete Cylinder Pipe in sizes of 16" to 84"—and even larger—for high pressure pipelines.

A Hazen-Williams Hydraulic Slide Rule will gladly be sent upon request with our compliments.

LOCK JOINT PIPE COMPANY

Established 1905

P. O. BOX 269, EAST ORANGE, NEW JERSEY

Denver, Colo. • Chicago, Ill. • Kenilworth, N. J. • Kansas City, Mo. • Rock Island, Ill.
Joplin, Mo. • Valley Park, Mo. • Cleveland, Ohio • Hartford, Conn. • Navarre, Ohio

SCOPE OF SERVICES

Lock Joint Pipe Company specializes in the manufacture and installation of Reinforced Concrete Pressure Pipe for Water Supply and Distribution Mains in a wide range of diameters as well as Concrete Pipe of all types for Sanitary Sewers, Storm Drains, Culverts and Subaqueous lines.

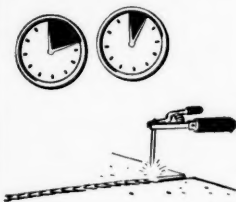
MANUFACTURERS RECORD FOR

LOCK JOINT
Reinforced Concrete
PRESSURE PIPE

DH-2... FOUR WAYS BETTER

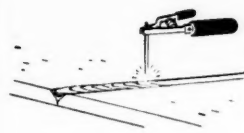
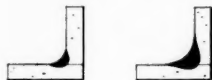
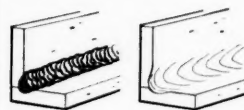
FASTER BY TEST

Get 20% more metal deposit per hour with DH-2. Speed that cuts welding time and costs. And DH-2 is easy to handle — has minimum spatter loss.



BETTER APPEARANCE

Here, too, DH-2 excels; weld metal "feathers out" neat and uniform. No notched effect along weld edges.



MEDIUM OR DEEP PENETRATION

You get what you want with this improved P&H Electrode. Weld at normal amperages for medium penetration . . . high amperages for deep penetration.

FOR DOWNHAND

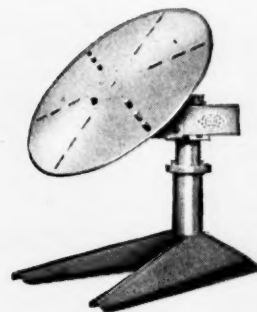
DH-2 performs extremely well for all horizontal, flat fillet and groove welding. It's a downhand "specialist" that's winning out wherever it's tried.

"SM"
AWS
E-6013
"FR"
AWS
E-6012
"CM-50"
AWS
E-7011
"FW"
AWS
E-6020
"AC-3"
AWS
E-6013
"PF"
AWS
E-6012
"AC-1"
AWS
E-6011
"AP"
AWS
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P&H ELECTRODES MEET ALL NEEDS

These are but a few electrodes of the P&H mild steel group. There are types for all mild, alloy and stainless steel applications — for cast iron and for building up and hard surfacing.



P&H WELDING POSITIONERS

Cut handling costs — position work for easy downhand welding — use of larger electrodes. 2500 lb. capacity unit, Bull. P2-1; larger units, Bull. P1.

P & H

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WELDING
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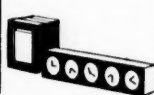
ELECTRIC
HOISTS



DC
WELDERS



AC
WELDERS



WELDING PRODUCTION
CONTROL SYSTEMS

LITTLE GRAINS OF SAND

*"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."*

Southern business succeeds. With 26 per cent of the business concerns of the nation in 1944 located in the South, that region had but 7½ per cent of the country's business failures in that year, indicating a stability far above that of the nation as a whole. This sounds as though the South presents an opportunity, instead of an economic problem!

Bureaucracy unlimited—under the New York State Fair Employment Practices Act, an employer is forbidden to ask certain questions of prospective employees which are required in filling out Social Security forms.

The American people are the victims of a shameful hoax. They have been told by their government that they are protected from monopolies by the Sherman Anti-Trust Act, yet by the judicial juggling of the Supreme Court and the failure of the Chief Executive to sign constructive legislation they are victims of monopolies far more vicious than the worst robber baron ever dreamed up. They are brow-beaten, intimidated and kept from buying the necessities of life by organized labor monopolies, operating outside and with the blessing of the law. Not until labor unions are regulated in like manner with all other organizations will we again have freedom of opportunity.

Under the heading of interesting coincidences is the fact pointed out to us in a letter from Mr. Waldo M. Wright, advertising manager for the Amarillo Gas Company of Amarillo, Texas. Mr. Wright reminds us that the Texas issue, published last month, contains 254 pages, one for each of the 254 counties of Texas. Our business department is congratulating itself that the same ratio did not hold for the issue dedicated to South Carolina, which has only 46 counties.

Proponents of federal control of our education system erroneously point out that the education provisions of the GI Bill of Rights are a logical first step in that direction, since the tuition and other fees are paid for by the government. We should like to point out that this is by no means progress towards federal-

ized education. In this case the student is being subsidized, not the institution. Schools and colleges are still free to teach what they like to whom they like.

So long as the housing shortage is critical and families are living together or in close proximity, they will double up on the goods and appliances they use as they do in living space. Why should three families in one house have separate washing machines, newspapers, refrigerators, or a score of other household necessities and luxuries. In the interests of an expanding market, each and every industry in the country should take as active a part as possible in alleviating the housing shortage.

The catch phrases "Freedom from Fear" and "Freedom from Want" were thrown at us in the midst of war, when all of us were eager to follow the leadership of our Commander in Chief. A moment's thought will show anyone how hollow these phrases are. The man who knows no fear is a fool, and the man who wants nothing is dead.

"When you can shake hands with your competitor and mean it—when you can work hard in your business and love it—then business is safe. When you advertise service and give it—when you can build a reputation and keep it—then business is safe. When you can accept wise counsel and heed it—when you can agree to a standard and stick to it—then business is safe. When you can sense competition and not knock it—when you can fight competition and still boost it—then business is safe."

Binswanger Glass Topics

Some people in Washington just aren't happy unless they're giving away money—the taxpayers' money—and the more the merrier. For example, take the following instance of following the Good Neighbor policy a little too freely. During the war, Colombia was approached as to how much she would require in the nature of lend-lease aid. Despite the fact that Colombia's President said that \$2,000,000 would be more than ample, certain military and lend-lease officials insisted on disbursing \$15,000,000 worth of largesse. Colombia countered that this was entirely too much, and proposed \$4,000,000, payable in ten years at 4 per cent. This the United States turned down, with the result that Colombia, in order to get anything at all, was forced to accept the full \$15,000,000.

The theory has been advanced that, instead of
(Continued on page 14)



Original Woodcut by Lynd Ward

When a growing community decides to construct a supply line to tap new sources of water supply, it plans for future as well as present needs. It is logical, therefore, that long-lived cast iron pipe should so frequently be given the preference over other materials, even at a higher first-cost. For this type of construction should be permanent construction. The pipe should be bought once, laid once, and cost little or nothing to maintain. U. S. Cast Iron Pipe, in supply line service, has been meeting these requirements for many years in all parts of the country.

U.S.
cast iron
PIPE

U. S. PIPE & FOUNDRY CO.
General Offices: Burlington, N. J.

*Plants and Sales Offices throughout
the U. S. A.*

for plants and
PROCESS LIQUIDS

..... IT PAYS TO
STANDARDIZE ON

BOWSER

METERS • FILTERS
PROPORTIONERS
VACUUM STILL
FUELING EQUIPMENT
Storage and Dispensing Units
PUMPS

Because

**THERE IS NO SUBSTITUTE
FOR 60 YEARS OF
BOWSER EXPERIENCE**

... designing and building equipment for measuring, handling, processing and storing **HUNDREDS OF DIFFERENT LIQUIDS**. Every Bowser product is designed to improve some industrial process.

PLANT EXPERIENCE PROVES

... that interchangeable parts, similar maintenance methods and a single source for all equipment lowers operating costs in any plant. This advantage is enjoyed today in hundreds of Bowser-equipped plants. Liquids vary from naphtha to tar.

An engineer from a Bowser office near you will gladly check your plant and make recommendations. No obligation except to serve you promptly. Please write us indicating liquids, temperatures and volume.

BOWSER, Inc.

1337 Creighton Avenue Fort Wayne 2, Indiana

LIQUID CONTROL SPECIALISTS SINCE 1885



METERS



FILTERS



PUMPS



PACKAGING
UNITS

(Continued from page 10)

saddling the country with an enormous subsidy bill to pay exorbitant wage demands on the part of sailors, it might be better to tie up the ships. By doing this, we would force other nations to build up their merchant marines and earn honest dollars, rather than come begging to us for loans. We wouldn't lose any foreign trade, as the whole world would still come for our goods. And the whole procedure would be on the up and up, instead of forcing the taxpayers to foot a bill they never even saw.

"While the public is being soaked in every possible manner to get new tax revenue, gigantic Federal business undertakings ride deadhead on the body politic, from the standpoint of being supporters of the various functions of government which they utilize.

"How long will it be before the people decide they have had enough socialistic free riders and demand that government business which destroys taxable private property be taxed in the same manner as is business with which it competes?"

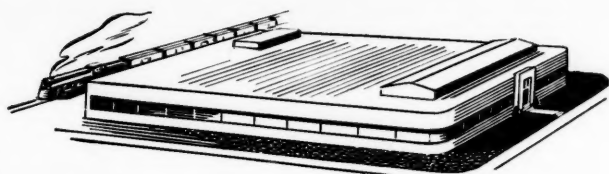
Industrial News Review

Perhaps the huge backlog demand for goods and services, and consequent inflationary threat, isn't as awe-inspiring as the OPA planners would have us believe. We heard recently of a dealer who received two washing machines, and had to offer them to thirteen people with names on his waiting list before he found customers for the machines. When an individual places an order for delivery six months from now, he is apt to exaggerate the thickness of his pocket-book. We know that there are people who have placed their names with every automobile dealer in town, so that they can be sure of getting one car as soon as possible. Unsatisfied demand multiplies its manifestations.

In the last four years, five and a half billion dollars have been spent on food subsidies. This money came out, or will come out of the pockets of the American taxpayers. Had we done away with the subsidies and charged the higher prices necessary to stimulate food production, the net result would have been the same, and we would have had a national debt five and a half billion dollars lower, to say nothing of the elimination of administrative expense.

The present administration's remedy for whatever ails the country is simple—slap on another control. While at war, we had wartime controls. Now that we are at peace, we have reconversion and peacetime controls. Whether we are in the throes of prosperity or depression, we have controls to fit. So we suggest yet another control—birth control for national planners. At least it would be a control that might work—eventually.

(Continued on page 18)



PLANT the Future in GEORGIA

erate size manufacturers employing up to 100 workers will find an ideal combination of industrial advantages in the small towns of Georgia. Here friendly, native-born people make up a reservoir of diligent, adaptable, easily trained workers. These Georgians believe in fair play. They believe that an honest day's pay deserves an honest day's work. A feeling of mutual trust and mutual respect exists between workers and management. In the small towns of Georgia you will find plenty of elbow room, plenty of sunlight, a year-round mild climate which contributes to lower construction and production costs. For many

types of industry raw materials are close at hand. There is plenty of good soft water . . . dependable electric power at low rates . . . excellent transportation to rich and growing markets. Georgia is a good place to work and a good place to live. Georgia has a sound tax structure—a well balanced educational system—a fine highway system and recreational facilities from the mountains to the seashore.

Our staff of industrial engineers has assembled accurate data on favorable industrial sites in the small towns of Georgia which are especially attractive to moderate size plants. Write Industrial Development Division, **GEORGIA POWER COMPANY** Atlanta, Georgia





SLAYSMAN GEARS

make the wheels GO

Power transmission is our business.

All items of transmission, with Gears and Sprockets the leader, including "V" Belt Drives, Chain Drives, Flexible Couplings, Ball and Roller Bearings Bronze, Plastic and Lignum-vitae Bearings can be furnished. These either being made by us, or obtained from National Manufacturers. Complete machine shop facilities are maintained by us for the custom-made or made-to-order sizes.

GEARS

Spurs, Bevels, Worm Combinations, Spline Shafts and Gear Tooth Specialties, from any metals, to close tolerances can be produced to specifications of interchangeability.

SPROCKETS

Roller Chain, Silent Chain, Spud Chain and Ladder Chain Sprockets made to specifications from various metals, including Steels and Alloy Steels, Cast Iron, Bronze, Stainless and Duraluminum.

THE SLAYSMAN CO.

Established 1885 • Incorporated 1937

Engineers • Machinists

MANUFACTURERS of INDUSTRIAL GEARS

801-813 E. PRATT STREET

BALTIMORE 2

MARYLAND

(Continued from page 14)

How many of us would condemn our Senator or Representative if he voted contrary to our feelings on merely one measure? Very few, we believe. Most of us who take the trouble to check up on what our congressmen are doing evaluate them over a period of time, and would no more think of turning against them because of a single issue than we would think of renouncing our best friend because he rooted for one contender in a championship boxing bout while we favored another. Yet that course is exactly what the CIO has taken in Arkansas. Brooks Hays, representative from Little Rock, has been a marked liberal, voting consistently for measures which organized labor favored. Yet because Mr Hays dared to support the Case Bill, the CIO has placed him on the purge list. That should give you a good idea of what the CIO thinks of an independent legislature.

The people of this country would be surprised and shocked to wake up some morning and find that all business had thrown in the sponge. But in view of the obstacles thrown in the way of legitimate business by government planners, it is a wonder that this hasn't occurred long ago. The fortitude, patience, resourcefulness and plain old-fashioned guts shown by the majority of executives is all that has stood between us and disaster.

"... Jobs do not spring into being by mere pronouncement, Government decree, wishful thinking, or the pressing of a button. Under a free society it is the consumer who by his preferences in the market place determines the type and amount of goods to be produced. Our task, consequently, is to maintain a high level of marketable industrial production. From this stems productive jobs, profits to industry, and revenue to the Government..."

New England Letter

The following is quoted from an advertisement of the Trundle Engineering Company in *The Cleveland*:

The other day a friend of mine said he was beginning to think about taxes. Here's what he said:

"I just wrote a sizable check to finish paying my 1945 federal income tax. I don't have a big money income, but last year I paid about \$4,000 tax on it. I pay state and local taxes besides.

"That \$4,000 is the salary of a pretty good man, and I'm paying it all.

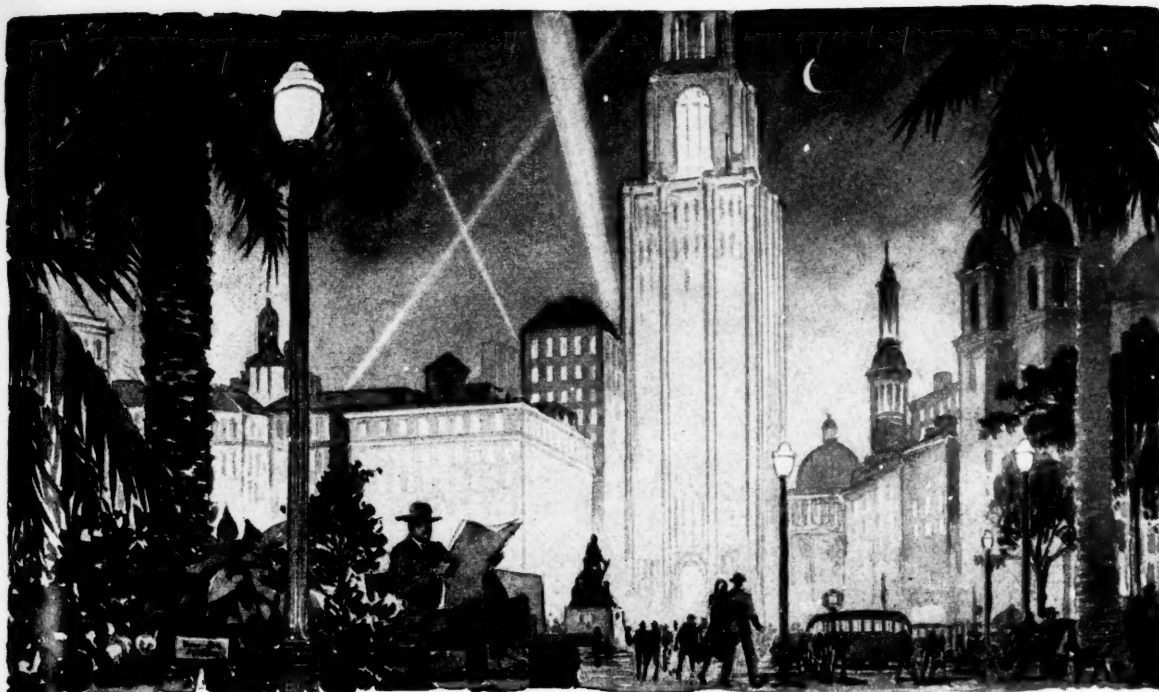
"What is my 'bureaucrat' doing for me?

"When I buy a car of steel, or coal, or a machine, or a new suit of clothes, I try to get my money's worth or I don't buy.

"What kind of value do I get from the federal employee whose entire wages I pay? Is he doing anything for me, or is he just living off of me?

"Maybe our painless method of paying taxes has made me forget some of my responsibility for making

(Continued on page 22)



Night - *like the Light of Day*



THE SUN drops behind distant hills . . . Darkness enwraps our material existence . . .

But night has little of its pristine terror and tragedy . . .

For witness a wondrous transformation . . .

Electricity dispels the darkness—and the *light of day returns!*

Streets become safer . . . Emergencies in the home and hospital are met . . . Industry functions with nightshifts . . . And storekeepers pursue their trades! . . .

Because of ELECTRICITY generated, often times, hundreds of miles away. Mighty hydraulic turbines tirelessly transform water's energy into useful mechanical energy for the benefit of man!

For more than 72 years, we have pioneered and led in this utilization of water. As a result, we have a wealth of experience and engineering skill which you can use at a profit by placing your power problem in our hands!

*If It's Hydraulics -
Put It Up to Us!*

S·MORGAN SMITH COMPANY
· YORK · PENNSYLVANIA · U·S·A·

POWER by SMITH



HI-LIFT REG. U. S. PAT. OFF. PUMPS



THE OUTSTANDING DEVELOPMENT IN WATER PUMPING IN THE LAST 10 YEARS

For Deep or Shallow Wells
Capacities: 600-3300 Gals. per Hour

"Squeezes Water Upward"

The magic pumping element of the Hi-Lift consists simply of a helically contoured, stainless steel rotor: scientifically heat-treated and chrome plated. This shaft revolves slowly within a special cutless rubber stator: also helically contoured. Slow, smooth, continuous pumping action is created, "squeezing the water upward." Extremely high pressure may be developed.

The Hi-Lift is water lubricated—no oil is used underground. The only moving parts are rotor and shaft. Can be installed in wells as small as 4" in diameter. The Peerless Hi-Lift is the ideal source for pumping clean water in a wide variety of municipal, industrial and commercial applications. Request Literature.



Patents: Manufactured under R. Moineau patents U. S. 1892217 and 2028407; Canadian Patents 352574. By exclusive license to Robbins & Meyers, Inc. Peerless U. S. Patents Nos. 2208975, 2338937 and 2346426. Other patents pending.

- NO PRIMING
- NO OIL BELOW THE SURFACE
- FOR ALL PRACTICAL LIFTS WITHOUT PUMPING ELEMENT CHANGES
- MAXIMUM RESISTANCE TO ABRASIVE ACTION

Write today for the illustrated Peerless Hi-Lift bulletin describing the many advantages found in this advanced method of pumping water.

PEERLESS PUMP DIVISION

Food Machinery Corporation

Canton 6, Ohio • Quincy, Illinois • Los Angeles 31, Calif.
Distributors in Principal Cities

(Continued from page 18)

things better. It's easier to criticize than to correct. I'm going to talk it over with my congressman."

I believe that most of our troubles—production, labor, prices, black markets and all—start at home. Perhaps we should do more toward curing them at home. Some of us have too often dropped the difficulties in government's lap, and then we've kicked about the results.

Let's talk things over among ourselves, as well as with our congressmen.

GEO. V. TRUNDLE, JR., *President*

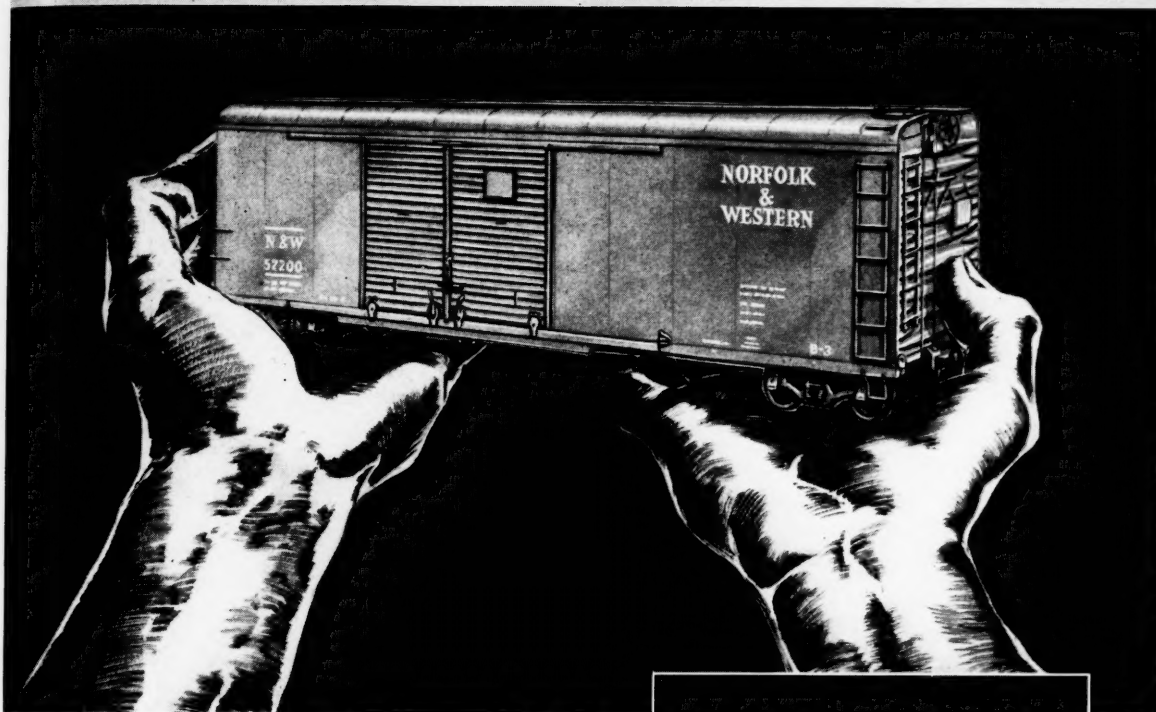
The brand name system of distribution is the last sure bulwark of free enterprise. Big labor and big government bureaucracy, engaged in a mighty struggle for control of the nation's economic processes, have left production management standing groggily on the sidelines, Henry E. Abt, managing director of the Brand Names Research Foundation, recently declared. But the general public, the average American consumer, who was "sovereign referee of the free competitive enterprise system as it once operated" still has control over standards of quality and technological improvement of manufactured goods through the operation of the brand name system.

The Interstate Commerce Commission, by overlooking one salient feature in the railway rate situation, seems to be doing an injustice to the railroads. The ICC recently granted a freight rate increase averaging 6.5 per cent, termed an "interim increase," with the highest increases being in the eastern region. The 1945 traffic load, carried under present conditions with the 6.5 increase, would have netted the carriers a return of less than 3 per cent on their value as the Commission figures it, which is bad enough. But the ICC apparently ignored the fact that the railroads are no longer hauling loads commensurate with the 1945 totals.

It is pleasant to note that sometimes Congress does not drift with the tide in the matter of Washington competition with private enterprise. This is exemplified by the House of Representatives, when by a vote of 161 to 128 it instructed its conferees to oppose a Senate amendment to the Government Corporations Appropriations bill which would have granted three million dollars for construction of a fertilizer plant at Mobile, Alabama.

The press of the nation made much of the Treasury Department's annual list of the largest incomes in the country, but entirely too little was said about the portion of those incomes eaten up by taxes. The man worth \$100,000 a year to his organization must pay \$64,000 of it to the federal government before he even starts to pay other taxes.

It Was Made for You -



**WHERE DO YOU
WANT IT?**

There is drama in the life of freight cars. To the average person they may look no more impressive than painted boxes on wheels. But there is good steel in them and strong timber. And they are designed and built by experienced engineers and craftsmen to do a job . . . to haul anything anywhere rails run.

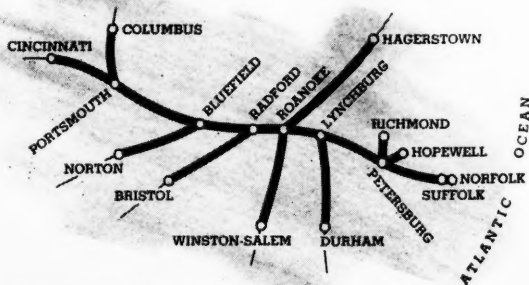
Today they may be on lonely sidings; tomorrow they will be parked beside the humming assembly lines of America's greatest industries.

"Peanuts" may be the manifest today; tomorrow they will be speeding across the country loaded with rare products from distant lands. But whatever their load, they rush on and on and on. Over mountains, across canyons, through snowdrifts, steaming swamps, scorching deserts or down long valleys beside quiet streams.

But whether their job is tough or pleasant, dull or romantic, they do it well . . . because they are designed for it, built for it, and maintained for it.

The Norfolk and Western has thousands of modern freight cars. Some of them are yours — built to do your job. Where do you want them?

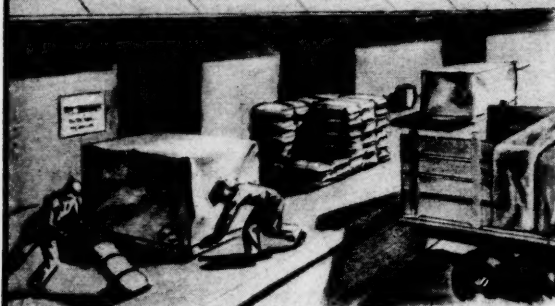
N. & W. representatives are located in most principal cities — call or write them for traffic suggestions.



**Norfolk
and Western
RAILWAY**

PRECISION TRANSPORTATION

KEEP IT UNDER COVER!



Come rain, snow, freeze or blow, your goods stay safe and dry under weather proofed Fulton tarps. Stacked on the loading dock, loaded on trucks, waiting on the wharf—wherever your shipments go, Fulton protection is easy to take along. You'll save the price of tough, all-weather Fulton tarps over and over by cutting down weather damage on shipments in transit and for general use around the plant.

Fulton's rope holes are triple reinforced, lined with rust-proof metal grommets... the strong, tightly woven canvas is permanently "pressure impregnated" with Fulton's exclusive weather and mildew treatment.

Fulton tarps come in standard sizes—a size for every use, a thousand uses for every size. Near you there's a Fulton dealer who will be glad to serve you. Call him today.

FULTON BAG & COTTON MILLS

Manufacturers Since 1870

New Orleans St. Louis Dallas Kansas City, Kans.
Denver Atlanta Minneapolis New York

U. S. RAILROADS BEST

There is, indeed, in all the world no such coordinated national system of transportation as is conducted in the United States by its several hundred railroads. These railroads are almost wholly the creation of private capital. They are maintained by private funds, and operated by business companies. They are, nevertheless, in the highest degree public servants, providing, under public regulation, a transportation service unequalled in volume, extent, variety and economy.

These private builders and public servants have been a major force in the development of the country. Our very national unity—political, economic, social—is due in no small measure to the existence of these railroads. They have been original and prime forces in the constructive growth of agriculture, industry, commerce and social development, and are themselves to a large extent the creators of the tremendous volume of American traffic for which all forms of transport so vigorously compete.

During the decades of their history, the steady trend of railroads has been toward improved service with lower rates for the public, and higher wages for employees. In the past three decades, since just before the first World War, wages as measured in cents per hour have quadrupled and taxes have multiplied many fold, but the average charge for carrying a ton of freight one mile has increased less than one-third, and the average charge for carrying a passenger one mile is actually less today than it was in 1916.

Such results would not have been possible but for the investment by the railroads during those years of vast sums in new and improved facilities. And yet, upon this increased necessary investment there has been earned a consistently inadequate return. In only one year since before the first World War has the net railway operating income of the railroads equalled as much as 5 per cent upon their undepreciated property investment, and that was in 1942. During the entire second World War period, 1941-1945, it averaged only 4.22 per cent, while for the five years just before the war it averaged only 2.22 per cent.

The railroads which have accomplished such results for the public and for their employees, not only pay their own way, but through their taxes contribute in major fashion to the general support of Government, including the public schools, the national defense, the maintenance of order and public safety, the operation of public health services and institutions, and all the general welfare services of the Government. Railroad taxes contribute even to the provision and maintenance of roads, waterways, airways and airports.

The railroads are looking to the future, to the changes which advancing technology is bringing, and to the better service which continued investment in plant and equipment will make possible. They should be assured of such Governmental policies as will encourage rather than hinder the development of the better transportation service which they can and should render.—*Association of American Railroads.*



AND BEST OF ALL ... Healthier Youngsters!

SOCIAL studies have proved that children who get a normal amount of milk and milk products in their diets are more energetic, have more initiative, and develop into more resourceful adults than children who are deprived of such wholesome foods. Healthier, more alert southern youngsters are one of the most satisfying results of the farm diversification program which emphasizes livestock and dairying operations.

BALANCED FARMING

Besides providing wholesome food at low cost and supporting many associated processing and selling activities, dairying operations offer two important benefits to southern farmers. First, dairying provides a constant cash income all during the year, and so increases the farmer's purchasing power and stimulates southern business. And second, livestock is a necessary link in the natural "animal-plant-mineral" soil enrichment cycle. Farmers who add livestock production to their field crop programs cease to rob their soil of its fertility but rather increase its productivity as time goes on.

BUSINESS CAN HELP

For many years, the Tennessee Coal, Iron & Railroad Company has been cooperating with state and federal agricultural agencies and with bankers and businessmen to obtain and present necessary technical and statistical information. It has made extensive use of its promotional and advertising facilities to show the need for dairy operations in the South and to dramatize their benefits to the individual farmer. Our Agricultural Engineers have drawn plans for necessary buildings—plans which have been distributed to interested farmers free of charge. Information about the "4 Cash Incomes A Year" Plan, which stresses the importance of livestock operations, has been widely circulated, and our marketing specialists have been instrumental in establishing milk plants and receiving stations.

These and other practical methods of aiding the southern farmer will be continued by T.C.I. because we believe that agriculture is the backbone of southern economy. Whatever helps southern agriculture helps all southern business.

U-S-S STEEL PRODUCTS MADE AND DISTRIBUTED BY T. C. I. INCLUDE:

- Rolled, forged and drawn steel products.
- Structural shapes, plates, bars, small shapes, agricultural shapes, tool steel, strip, hoops, cotton ties.
- Steel sheet piling and H-bearing piles.
- Concrete reinforcing bars.
- Black, galvanized and special finish sheets.
- Wire and wire products, including woven wire fencing, barbed wire, bale ties, nails.
- Rails, track accessories, wheels, axles, forgings.
- Culverts, cold-formed steel sections.
- U-S-S High Strength Steels and U-S-S Abrasion-Resisting Steels.
- U-S-S Stainless Steel.
- Semi-finished products, pig iron and ferro-manganese.

LISTEN TO . . . the "Hour of Mystery" presented by United States Steel on the radio every Sunday evening. Consult your local newspaper for time and station.



TENNESSEE COAL, IRON & RAILROAD COMPANY

General Offices: Birmingham, Alabama

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UNITED STATES STEEL



LET'S **Check** THE CITY OF
Houston, Texas

Today, all of Houston's potable water supply—millions of gallons daily—is supplied by Layne Wells and Pumps. More than 250 complete Layne Well Water units are serving the city and such places as Hotels, Theatres, Laundries, Packing Houses, Ice Plants, Rice Mills, Steel Companies, Iron Works, Cement Plants, Ship Building Yards, Bottling Plants, Light & Power Services, Oil Field Tool Factories, Paper Mills, Pipe Line Companies, Oil Refineries, Cold Storage Plants, Chemical Plants and Breweries. Such outstanding preference is an exceptionally fine tribute to Layne's skill in building high efficiency wells and pumps.

Behind Layne Well Water Systems are seventy years of engineering research and practical experience. These Systems embody basic Layne developed and patented features which cannot be duplicated by others. Such exclusive and thoroughly proven superiority has made the name Layne world famous.

For the latest catalogs and bulletins, address Layne & Bowler, Inc., General Offices, Memphis 8, Tenn.

HIGHEST EFFICIENCY

Layne Vertical Turbine Pumps are available in sizes to produce from 40 to 16,000 gallons of water per minute. High efficiency saves on power cost.

AFFILIATED COMPANIES: Layne-Arkansas Co., Stuttgart, Ark. * Layne-Atlantic Co., Norfolk, Va. * Layne-Central Co., Memphis, Tenn. * Layne-Northern Co., Mishawaka, Ind. * Layne-Louisiana Co., Lake Charles, La. * Louisiana Well Co., Monroe, La. * Layne-New York Co., New York City * Layne-Northwest Co., Milwaukee, Wis. * Layne-Ohio Co., Columbus, Ohio * Layne-Texas Co., Houston, Texas * Layne-Western Co., Kansas City, Mo. * Layne-Western Co. of Minnesota, Minneapolis, Minn. * International Water Supply Ltd., London, Ontario, Canada * Layne-Hispano Americana, S. A., Mexico, D. F.

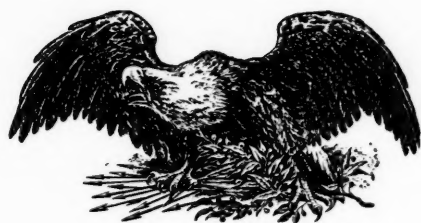


**WELL WATER SYSTEMS
VERTICAL TURBINE PUMPS**

Stockholders Outnumber Employees

The following table gives comparative figures on number of employees, number of shareholders, and total assets for 72 manufacturing companies. It is interesting to note that the total number of shareholders far exceeds the total number of the employees.

	Number of Employees	Number of Share- holders	Total Assets in Mil- lions
Allis-Chalmers Mfg. Co.	28,515	24,234	8180
American Can Co.	24,500	33,884	232
American Cyanamid Co.	14,500	34,100	145
American Locomotive Co.	17,251	24,173	128
Amer. Radiator & St. San. Corp.	14,400	56,947	127
Amer. Rolling Mill Co.	24,569	49,939	207
Amer. Smelting & Ref. Co.	28,366	29,619	200
American Tobacco Co.	10,835	74,338	484
American Viscose Corp.	20,233	16,118	140
American Woolen Co.	21,000	18,946	104
Anaconda Copper Mining Co.	46,404	120,545	616
Armour & Co.	60,000	45,000	332
Atlantic Refining Co.	13,282	30,237	272
Bendix Aviation Corp.	22,287	25,601	172
Bethlehem Steel Corp.	202,095	78,854	881
Borden Company	28,484	49,278	180
Celanese Corp. of America ...	17,716	23,497	137
Chrysler Corporation	63,297	53,679	414
Continental Can Co.	24,405	34,306	178
Continental Oil Co.	6,613	27,498	173
Corn Products Refining Co. ...	5,000	25,127	119
Crown Zellerbach Corp.	9,160	19,038	106
Deere & Company	16,750	15,640	195
Douglas Aircraft Co.	27,000	8,763	141
Dow Chemical Co.	10,397	12,622	146
E. I. duPont de Nemours & Co.	67,461	87,936	1,205
Eastman Kodak Co.	42,800	42,090	307
General Electric Co.	148,233	243,333	858
General Foods Corp.	13,000	68,000	163
General Motors Corp.	345,940	425,657	1,814
B. F. Goodrich Co.	42,233	23,652	183
Goodyear Tire & Rubber Co. ...	100,000	54,701	280
Gulf Oil Co.	33,881	18,833	653
Inland Steel Co.	19,336	9,400	182
Inter. Business Mach. Corp. ...	11,751	19,235	134
Inter. Harvester Co.	69,361	39,000	559
International Paper Co.	23,414	20,831	252
Jones & Laughlin Steel Corp. ...	37,626	23,535	276
Kennecott Copper Corp.	21,300	89,380	465
Philip Morris & Co., Ltd.	4,200	5,800	107
Natl. Dairy Products Corp. ...	37,933	67,347	214
Natl. Distillers Prod. Corp.	6,500	21,710	135
National Lead Co.	9,500	18,501	129
Ohio Oil Co.	5,547	33,006	132
Owens-Illinois Glass Co.	18,324	12,437	123
Packard Motor Car Co.	10,844	112,845	109
Pittsburgh Plate Glass Co.	19,021	8,971	154
Pure Oil Company	16,562	41,011	211
Radio Corporation of Amer. ...	32,985	218,873	160
Republic Steel Corp.	56,624	59,953	398
R. J. Reynolds Tobacco Co. ...	15,000	67,500	315
Schenley Distillers Corp.	12,000	6,000	187
Shell Union Oil Corp.	27,696	15,750	427
Sinclair Oil Corp.	17,760	95,793	456
Socony-Vacuum Oil Co.	39,445	130,130	1,076
Sperry Corporation	16,000	28,270	104
Standard Brands, Inc.	12,844	89,700	118
Standard Oil Co. of Calif.	25,000	87,260	738
Standard Oil Co. (Indiana) ...	36,332	97,166	946
Standard Oil Co. (N. J.)	108,000	160,025	2,532
Standard Oil Co. (Ohio)	7,227	10,733	142
Sun Oil Co.	32,680	10,474	194
Swift & Co.	65,000	62,000	353
Texas Company	32,641	93,337	834
Tide Water Associated Oil Co.	10,116	29,880	233
Union Oil Co. of Calif.	8,679	36,342	229
United Aircraft Corp.	20,000	39,813	179
United States Rubber Co.	70,739	23,322	226
United States Steel Corp.	279,274	225,822	1,891
Westinghouse Electric Corp. ...	103,333	56,666	450
Wheeling Steel Corp.	18,326	7,410	133
Youngstown Sheet & Tube Co.	21,922	11,392	231
Total 72 Companies	2,925,449	4,082,805	\$27,206



"What Enriches the South Enriches the Nation"

BLOW OFF THE LID

The Mead investigating committee is giving us a peep under the lid at the unsavory stew that putrefies in the pot of vile things done at home in the name of war emergency while the bodies of our sons and brothers lay in foreign lands. It is our guess that instead of just the peep under it that we now have, the lid is about to blow off and the stench will sicken the stomachs of the nation.

During the war anyone who dared to breathe the slightest hint or express the faintest doubt as to the honesty, integrity and infallible intelligence of the public servants and private operators who were the engineers of the "war effort" stood condemned as unpatriotic. This emotional attitude of the public, fostered by government propaganda, perhaps was justified, but it gave free rein and a clear track to the beasts whose morals reside in their own bellies.

Now, however, with the exception of the horde of bureaucrats and government sponges, all of us know that the war is over. Now we want to know—indeed we demand to know what actually happened; why it happened; and HOW it happened.

The country will not be satisfied with another investigation like the recent Pearl Harbor one. For political reasons this degenerated into a farce and for sentimental reasons the mush minded public permitted it so to degenerate. Such a performance is not apt to happen again. Now the public is not only disgusted, it is mad.

Most of the men who represent us in Congress are men who try to represent their constituents and who conscientiously strive to perform the duties of the office to which they have been honored by election. These men are interested in the manner in which the taxpayers' money may have been squandered. They will be incensed if there is proof that it has been misused or embezzled.

It goes without saying that those citizens and their representatives who try to follow the serpentine course of the reptiles among us will have to overcome the obstructions placed in their way by the cliff dwellers of Washington. These people are congenitally opposed to permitting too bright a light to penetrate into any cave, no matter how small, in their community cliff.

We are not interested in investigating the various ramifications of some war contracts for the sake of muck-raking. We are interested in such investigations because we want the rascals scourged from our midst and the patriotism and integrity of the vast majority of our citizens, those in private as well as public life, established and confirmed. We want the parasitical politicians who acted as middle men for downright crooks thrown out on their collective ears and we want the crooks put behind bars so that we may again feel that we are living in a community of honorable men and, with them, breathing an uncontaminated air.

Still A Volunteer

This year Tennessee is celebrating its 150th anniversary of statehood.

Third of the states to join the Union after the original thirteen, the Volunteer State mirrors today in its magnificent progress the virile characteristics of its pioneers and founders.

From the birth of its statehood right down to the present, the progress made by Tennessee has been steady and impressive. Endowed as it was with rich natural resources, it required only the inspiring ingenuity of its people to convert its wealth-laden hills and mountains into productive mines, its lush valleys and prairies into productive farms and its vast timberlands into thriving lumber centers.

These primary industries have gradually and steadily become augmented by secondary or processing industries and supplemented by vast distributive facilities for putting the products of nature into useful consumption. Last available statistics show the state's mineral output to run between \$63 million and \$67 million a year; farm cash income better than \$330 million; and value of manufactured output, \$728 million. These figures do not include the production of atomic energy or other wartime expansions.

Selection of a Tennessee site at Oak Ridge for one of the nation's most important atomic plants presents additional evidence of the position of importance the state enjoys in the national economy. Future possibilities stemming from further development of this project for peacetime uses are almost beyond imagination.

To expedite maximum benefit from its productive facilities, the state has provided its 42,246 square miles and its three million people with a network of well over 3,000 miles of railway mainline track and over 5,000 miles of paved highways which serve to bind into a solid community the inhabitants of its three major regions, East, Middle and West Tennessee. It has provided good schools, good government and a multitude of recreational centers.

So, as it goes into the second half of its second century of statehood, Tennessee can look to the future with confidence. Blessed with an enterprising citizenry, favored with a pleasant climate and cognizant of prideful accomplishment in developing its natural wealth, the Volunteer State can safely harbor the conviction that the glories of the past are but forerunners of greater achievement to come.

Burn The Dead Wood

Government employees in all departments except War and Navy increased 23,450 in the Continental United States in the month of May, 1946, according to the latest report of the Joint Committee on Reduction of Nonessential Federal Expenditures. These two military departments released enough personnel for the overall total to show a decrease, but the signifi-

cant figure is the one for purely civilian agencies cited above.

Thus it is apparent that this discouraging trend towards government payroll padding is continuing. Our war-swollen bureaucracy keeps on swelling, without the excuse of winning the war.

There are a number of aspects to this unfortunate situation, all of them dismal to the businessman who is accustomed to conduct his business as economically as possible in order to protect his stockholders' investment.

Possibly the most discouraging of all is the utter lack of realization in Washington that the stockholders in the gigantic business being carried on there are the American people. Harry Hopkins is reputed to have said the people were "too damn dumb" to know what was going on; Henry Wallace bamboozles them with figures that remind us of the old saying, "Figures can't lie, but liars can figure;" and the OPA floods them with fear propaganda reminiscent of Herr Goebels at his most imaginative. Lincoln would be depressed to see the extent to which two-thirds of his "government of the people, by the people, for the people" has already perished from this earth.

There is but one remedy for this situation, of which the increase of the tribe of bureaucrats is but an outward manifestation. That is letting the people know what actually does go on in Washington, and in this respect the aforementioned Congressional Committee, headed by Virginia's Senator Byrd, is rendering yeoman service.

How do you get rid of a bureaucrat when he has outlived even his alleged usefulness? The Byrd committee has been doing its level best to find out, but so far has been stymied at every turn by the modern counterpart of Hercules' many-headed Hydra. Every time an employee is released from one bureau, a soft featherbed is found for him in another, and when he reports to his new position, he generally manages to bring along a friend.

How about the cost to the taxpayers of maintaining this young army? Let us be charitable and assume that all of the new employees are in the lowest civil service brackets. At the old minimum civil service pay rate of \$1440 a year, which has recently been boosted, this increase in May adds \$33,768,000 to the federal payroll for the next year. Bear in mind, too, that this figure merely represents the minimum possible wages for these employees. Training expenses, brooms to push, file drawers to slam, typewriters to pound and swivel chairs in which to swivel are also thoughtfully provided, with the people paying the bill.

There is one step that we as individuals can and must take. That is to send as our representatives to Congress men of the type of Senator Byrd and his confreres on the Committee—men who believe that wasting the taxpayers' money is a crime second only to stealing it. As Americans we are a thrifty people; we must carry that feeling of thrift with us to the polls.

NO NEED FOR AN S. P. A.

by

Senator Elmer Thomas
of Oklahoma

THERE is today an unmistakable drift towards the nationalization of our electric power industry. From Maine to Florida and all the way across to the Pacific coast this movement is underway, and those who are pushing it have made good progress to date.

For example, in the Tennessee Valley, home of the TVA, a large area is already nationalized. In this area there are no private plants which can compete with powerful government monopoly. There may be a municipal plant or two, but to all intents and purposes, the Tennessee Valley power facilities have been nationalized.

If this prairie-fire movement for nationalization of electrical energy sweeps the nation, existing companies worth eighteen billion dollars will find themselves in competition with the federal government. And if the government, through Congressional appropriations, persists in this competition with private enterprise, the inevitable result will be that the private companies will go bankrupt. No industry can face the tax-free competition of a federal enterprise and still keep prices high enough to avoid being driven out of business.

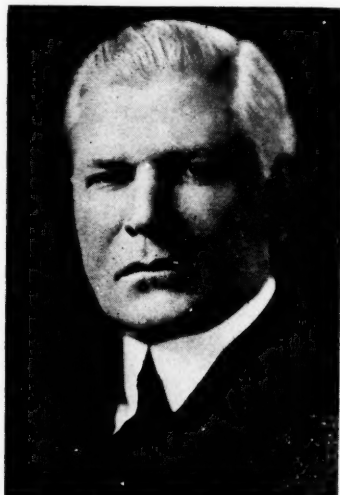
One link in this proposed chain of power nationalization is the Southwestern Power Administration. The SPA plans to cover a six-state area in the southwest, including my own state of Oklahoma. As is the case with nearly all government agencies which set out to compete with private enterprise, it does not show up favorably under close scrutiny.

In the first place, the Southwestern Power Administration has an extremely dubious foundation in law. It was not created by the Congress of the United States. It was created by the Secretary of the Interior, by virtue of his powers under the Flood Control Act. Using these powers, the Secretary drew up an executive order, had it approved by the President, and the Southwestern Power Administration came into being.

Originally, this Administration

had jurisdiction over the Norfork Dam, the Denison Dam, and the Pensacola Dam. The latter was a state dam which has been under the jurisdiction of the Federal Government but which will be turned back to the state shortly.

The executive order had one small phrase, "and related facilities," which the Southwestern Power Administration has used as a



Senator Elmer Thomas

bootstrap to pull itself up into the power industry. The chief counsel for the Administration said in a committee hearing that these words constitute authority to erect or buy power lines or stand-by plants—in short, to establish a Federal power empire in the southwest. The counsel's exact words were, "It (the phrase 'related facilities') is a very inclusive term embracing anything which aids or makes easier the performance of a duty." This, if carried to its logical conclusion, could include the liquidation of this author, since I certainly do not intend to make the performance of this particular duty any easier.

My points of objection to the

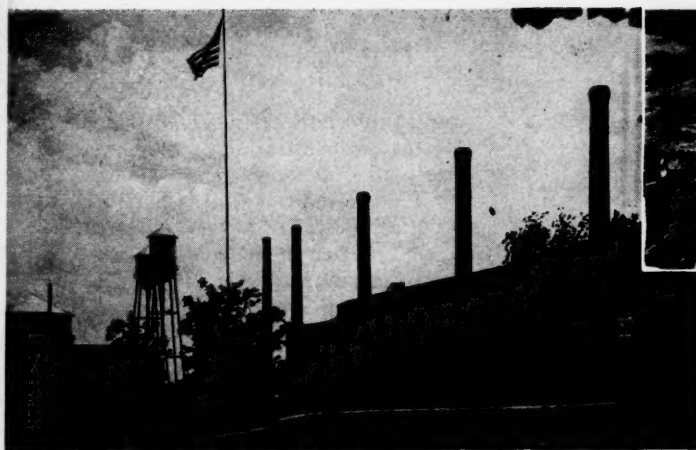
whole project are three: My distaste for the nationalization of the electric power industry, or any other, for that matter; the utter lack of need for additional power facilities in that section of the country, and the wasteful method in which the Southwestern Power Administration evidently intends to proceed.

Government competition with private enterprise, both politically and economically, is bad business. The former is true because Government in business is entirely foreign to what we think of as the American way of life; the latter because I have yet to see the form of business that private enterprise could not handle better than Government if allowed to proceed untrammelled.

My second objection is the lack of need for any additional power facilities in the Southwest at this time. During the war, when all was uncertain, including the future demands for power, we tried to have some dams built in my state of Oklahoma on the theory that we might need the electricity which would be developed there. At that time agencies of the Federal Government, naturally interested in winning the war regardless of cost, decided that there was no need for dams or additional power at that time, and refused to permit their construction. If at that time, when future needs were completely unpredictable and all possible measures were being taken to insure victory, those in authority said the Southwest needed no more power, how can the Federal Government now reverse itself so completely? The answer that comes to my mind is not favorable to the construction of an extensive system of paralleling and competing transmission and distributing power lines in the southwest section of the United States.

Even were it not for these factors, I would still be quite critical of the Southwestern Power Administration because of the wasteful manner in which it is handling its affairs. Recently, despite my objections, an appropriation of \$23,000,000 was requested for the purpose of connect-

(Continued on page 61)



Above—Libby-Owens-Ford Glass plant, second largest in the country.



Right Top—Refineries dot the Shreveport area. This is the plant of Atlas Oil & Refining Corp.



Right Lower—Oil field equipment plant of the Brewster Company.

SHREVEPORT

by

Richard W. Moseley

SHREVEPORT is not just another Southern town—it is a city with a population which has been drawn from all points in the nation. Shreveport's initial growth and development was due to its position as center of agriculture and forestry and its prominence as a marketing point. The discoveries of oil and gas in the surrounding area early in the 1920's brought about a considerable increase in population as the many oil companies and their suppliers began building operating organizations. This development brought technically trained men and women

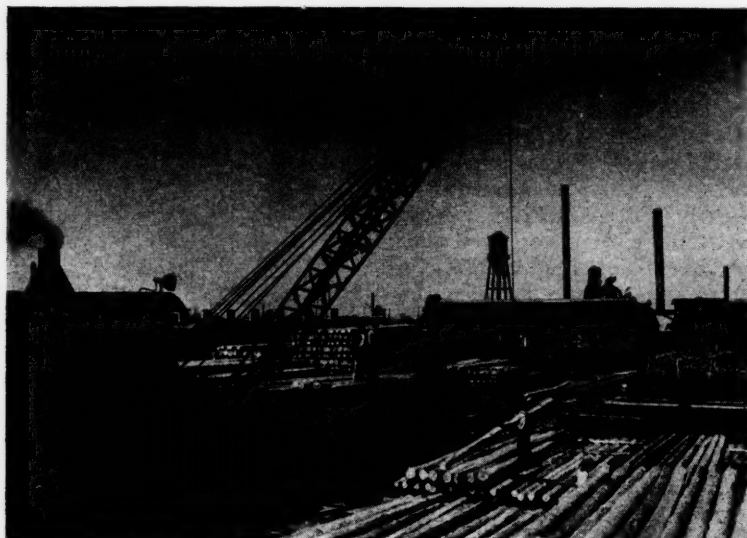
into Greater Shreveport from all sections of the country.

Shreveport has a population of approximately 115,000, a gain of 17,000 since the 1940 census, and Greater Shreveport, including Bossier City, 125,000. The division of population in the 1940 census showed: native white, 61.8%; foreign white, 1.5%, and colored, 36.6% with a labor force of 47,000 workers. The Shreveport trade area has a population of 1,906,061.

Its favorable climate has been an important factor in the industrial growth of Shreveport. Weather Bu-

reau records show a mean average temperature of 66 degrees for the past 69 years, and the average annual rainfall for the same period is 44.30 inches. The average number of clear and partly cloudy days each month is 22. Climate advantages, summarized, are: 1. Year-around operation; 2. Uninterrupted rail and highway traffic; 3. Pleasant living and working conditions; 4. Heating problems minimized—heating of factory buildings is required in appreciable quantities not to exceed five months a year; 5. Economical building construction—not necessary to design for heavy snow and ice loads or to insulate for extreme cold; 6. Humidity favorable for most manufacturing processes; 7. Circulating water problems minimized, and 8. A mild climate results in better employee attendance.

Banks of Shreveport and Bossier City have resources totaling \$202,692,435. In addition, there are two building and loan associations with total resources of \$11,050,614. Total debits of Shreveport banks in 1945



Left — Lumber, one of Shreveport's larger industries. The plant is that of Frost Lumber Industries, Inc.

Right—Composition roofing plant of Bird & Son, Inc., Shreveport.

PORT OPPORTUNITIES

were \$1,029,568,000. A depositor has never lost a dollar in a Shreveport bank.

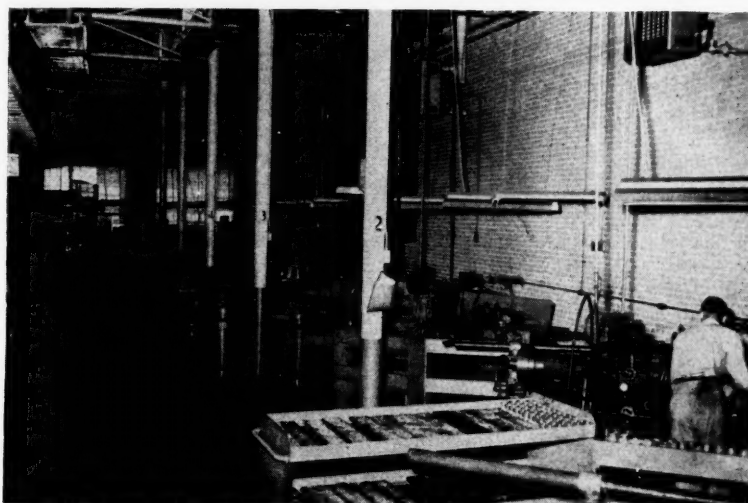
The Shreveport city tax rate is 16 mills, and the state, parish and school combined is 16.75. Thus an industry located inside the city would pay a total of 32.75 mills, based on an assessment of from approximately forty to fifty percent of actual value. An industry outside the city would pay 18.75 mills on the same basis of assessment. Other state taxes affecting industry are corporation organization and entrance fees, based on the amount of capital stock authorized, annual corporation taxes and corporation taxes of four percent on net income.

Shreveport and Bossier City are served by six railroads radiating in twelve directions from Greater Shreveport. This distribution of trackage over the immediate Shreveport trade territory provides excellent facilities for gathering raw materials as well as for distribution of finished products to local markets. One-line hauls are available to most of the principal distribution points of the Southwest and West Coast, as well as to the Gulf ports.

Shreveport and Bossier City are served by seventeen motor common carriers (general commodities). In addition to the common carriers, a number of specially licensed lines are in operation in Shreveport and Bossier City. These lines are experienced and qualified for transporting various types of items.

Air transportation is available to all points. Routes of three major airlines radiate from Shreveport in six different directions. Twenty-six flights each day provide round-the-

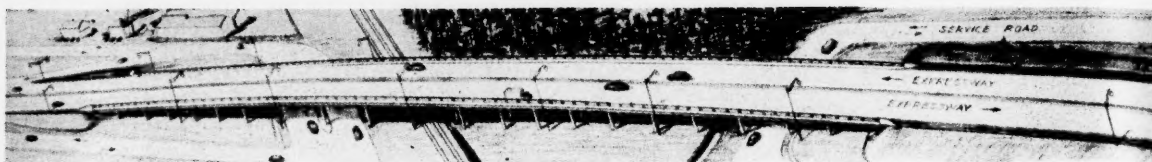
(Continued on page 68)



Above—Skilled southern labor builds precision equipment at Southern Switch & Signal plant.

Below—Shreveport Fertilizer Works, one of many chemical industries at Shreveport.





A proposed Southern Express Highway.

Civic Improvement Pays

by

C. R. Walker

MANY Southern towns and cities are placing civic improvement high on their agenda of postwar planning. If past experience is any criterion, they stand to reap outstanding benefit thereby.

There has never been a time like the present when urban communities could better afford to give thought to the financing of city betterment. Investment capital is at an all-time high for abundance, and interest rates are low.

With the end of the war, Southern communities have become more actively interested in their economic condition than they have been before. Many places, without previous industrial experience, have awakened to the realization that they turned out vast quantities of war materials. Others, which enjoyed such facilities before the outbreak of war, find that these have become greatly expanded. It is likely that in both cases their taxable wealth has increased.

It is desirable that both types of communities should plan urgently

for civic betterment as they face the opportunity of expanding peacetime activities. The confidence engendered by wartime achievement should inspire them toward further growth.

Those areas that have been only suppliers of raw materials during the war have been brought to see through the example of their neighbors how much the value of their resources would be multiplied if processed at home.

All these communities have a common goal. All want to grow. Most of them are intent upon plans that will achieve this goal. Planning is the order of the day.

In the main, postwar planning in Southern communities is well founded. Stress is laid on orderliness and swiftness. Careful attention is given to surveys and publicity. The surveys are directed toward ascertaining the types of industries that are needed. The pub-

licity is well devised to create interest on the part of business that can fill these needs.

Those communities, however, which go even beyond these steps and also provide surveys of civic shortcomings, and lay the foundation for eliminating as many of these as possible, are laying plans that will clinch the nail driven home by their other planning.

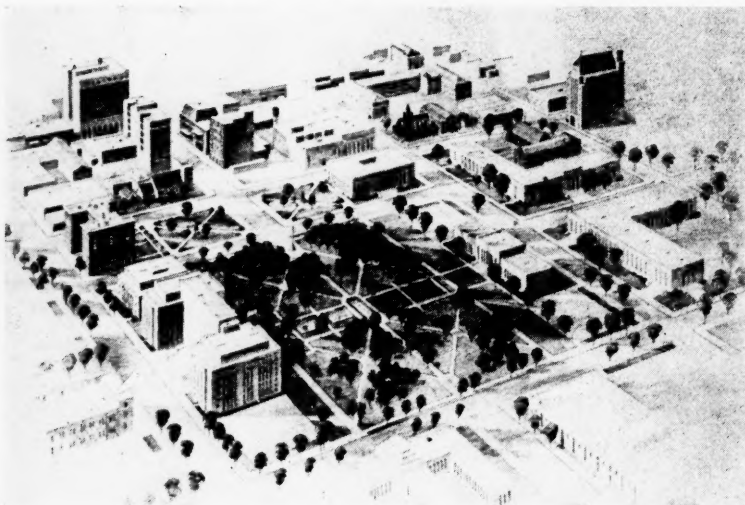
In the nature of things there are very few, if any, communities that are entirely free from detracting influences. In the nature of things these flaws are least apparent to those who live with them all the time. Unsightly spots, congested traffic, inadequate parking facilities, poor street lighting—these are conditions that longtime residents come to accept as grievances that are offset by the simple privilege of living in the "good old town." Too rarely does it strike home to them that a far more adverse effect may be wrought on strangers by civic flaws—perhaps scouts from industrial firms looking the place over with a view to location.

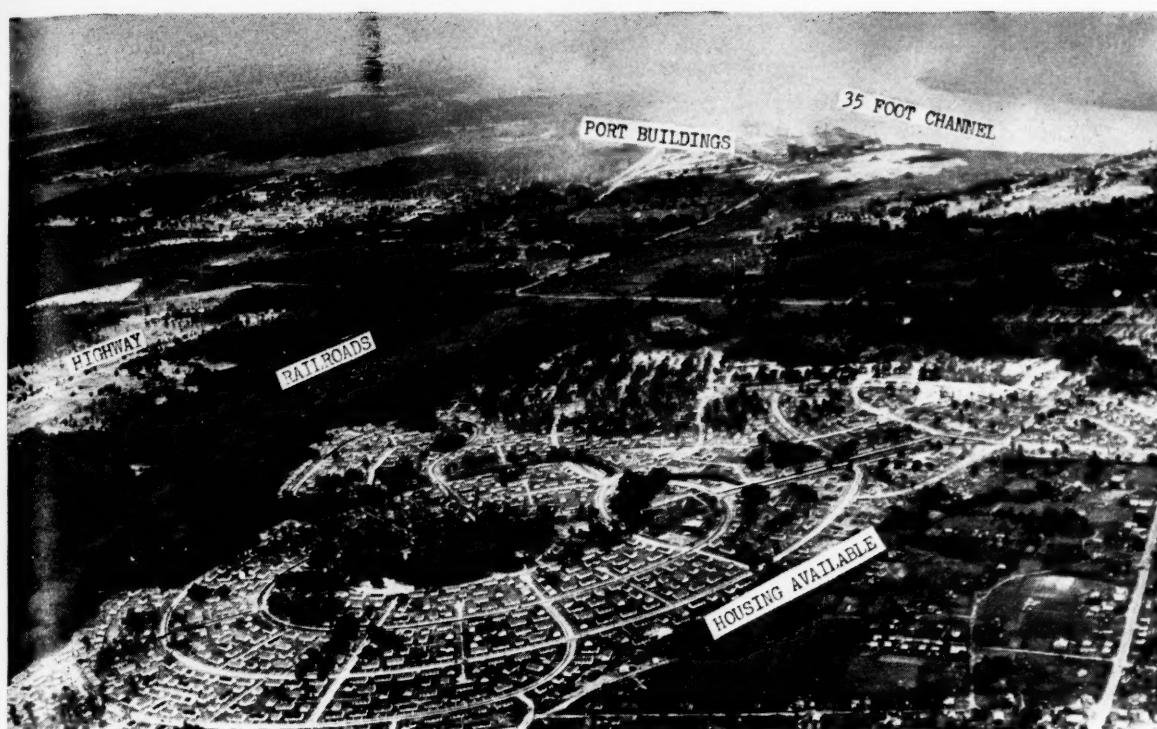
That the majority of Southern communities are alive to the urgency of these matters is evident from widespread reports that pour in. To mention a few:

This town (population 11,000) "has a 1946 program that calls for civic development and beautification alike, as an impressive example to other Southern cities and towns. New construction projects totaling \$16,000,000 are scheduled for this year in the county, and notably include improvement of public utility, highway, water conservation, airport and rural electrification facilities. If shortages do not prevent, more homes and business structures will be built in 1946. A novel feature of the program is the citywide planting of trees, shrubs and flowers

(Continued on page 47)

Civic Center proposed for the South.





Above—Aerial view of housing available at Charleston, S. C.

Charleston's New Industry Board

by
Omar Hill

UNDER the leadership of the Charleston Development Board, recently bolstered by a \$500,000 "new industry building fund" when a state charter was granted the Charleston Industrial Association. South Carolina's largest city is definitely in the vanguard of post-war planning communities as the South strides forward to a new golden era of industrialization and growth.

The half-million-dollar industrial association was the outgrowth of a six-month survey launched by the Development Board last October when the board was activated, and is a private corporation similar to others now successfully operating in Chicago, Los Angeles, Louisville and other cities. Its exclusive function is the financing of industrial sites and the purchase or construction of modern factory buildings, which in turn are leased or sold to responsible new manufacturers. Stockholders represent every type business and profession. Sixteen men subscribed \$10,000 each, and within another year the capital stock will be increased to a million dollars. Administrative af-

fairs of the association are handled by the Development Board.

The glaring need of a building finance corporation was immediately

*Arthur M. Field, chief engineer,
Charleston Development Board.*



recognized when Arthur M. Field, chief engineer, came from Memphis to direct the activities of the board which had previously raised \$167,000 to be used as an operating fund over a 3-year period. Mr. Field arrived with a seven-year background of successful work along similar lines. He knew the South and the many factors involved in attracting new manufacturers to any given point; he likewise knew many "contacts"—men who had money to invest in productive and profitable new industries, and from the start inquiries began coming in—and the lack of commercial buildings which could be used for factories became apparent.

The Development Board had evolved from the Charleston post-war planning committee in April, 1945, not to cure reconversion pains, since Charleston was one of the comparatively few cities in America without reconversion headaches, but to retain as much of her wartime growth as possible and, while preserving her charms and historical beauty, to progress in business opportunity by attracting new and

larger industries to insure permanent and increased prosperity.

For 200 years Charleston's economy had revolved around agriculture, forestry, fertilizer and commerce. In more recent years, it can be said with equanimity, monies left behind by ever increasing thousands of annual tourists helped no little in the scheme of financial matters.

At no time had Charleston's manufacturing plants—working 8 or more people—reached the one hundred mark, and when the war came on a pulp and paper mill, an asbestos products plant and a cigar-making concern combined with the lumber and fertilizer industry to employ more than 90 percent of all industrial labor.

During the war there was, of course, acceleration in business along all fronts, and Charleston responded in war production insofar as facilities permitted and warranted. Day and night activities at the Navy Yard, where up to 28,500 shipyard workers built destroyers and attack ships of various types sent bank clearings and retail sales to a new high. But in setting up machinery for the new industry board leaders knew that it would be physically impossible to absorb these wartime workers. It was hoped, and results were gratifying, indeed, to so accelerate the work of the board as to provide jobs for returning veterans—sons of Charlestonians fortunate enough to return to the business and social life of their native city.

Back in its embryonic stage leaders were encouraged by the wholehearted support of commercial Charleston. When the initial operating budget was set at \$135,000, but promptly soared to \$167,000 as subscriptions rolled in, the enthusiasm engendered by General Chairman Rufus C. Barkley, mill supply executive, and other leaders increased at each meeting. There had flared in the old historic city the most pronounced awakening to the need of industrial enlargement ever before recorded.

It flared, and fanned by wartime prosperity of a sort, coupled with memories of the early 30's, when cash registers grew rusty, bank clearings dipped perceptibly and the economic stability seemed threatened, it spread throughout the city and



Above—Rail classification yard adjacent to Charleston port terminals is served by three trunk lines—the Southern, Atlantic Coast Line and Seaboard Air Line.

county. And when the necessity of a supporting financial corporation, through which factories might be erected, became known, a million dollars worth of stock could have been disposed of without prolonged efforts.

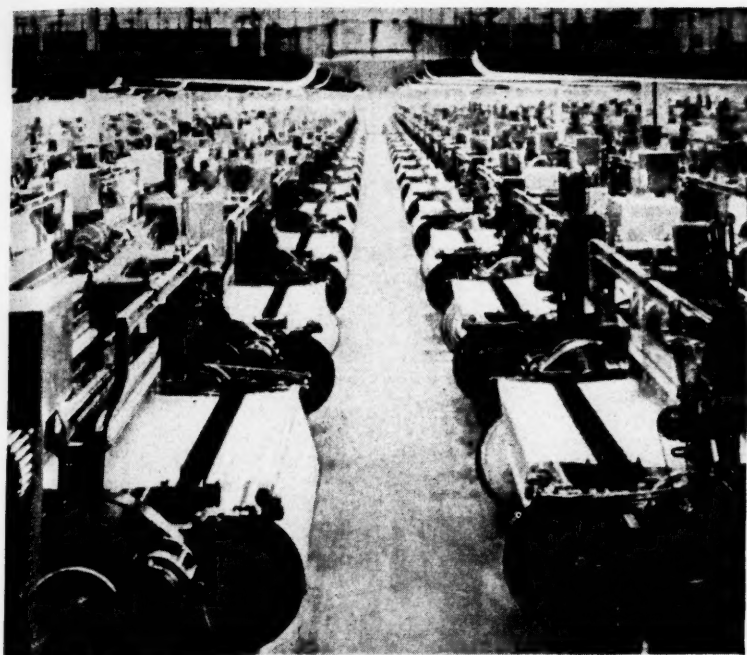
In April, 1946, when the Development Board held its first annual

dinner, Chief Engineer Field not only carried to the meeting a gratifying report of having secured 20 new industries for Charleston since his office had been set up six months previously, but actually had the new industrialists, themselves, as guests of the board.

(Continued on page 64)

Below—Oakdene Compress and Warehouse, Charleston, covers 525,000 square feet and is one of the largest one-story warehouses in the South. It has a ship side 750 feet long.





Above—The system in this weave room provides 80 per cent relative humidity and evaporative cooling. Electrostatic filters help clean the air to minimize soilage.

CLIMATE CONTROL

—Impetus for Southern Industry

by

Glenn I. Tucker

AIR conditioning technicians point to some of the great war plants of 1942-45 as examples which are indicative of the future of southern industry, then assert that any climatic disadvantages for factory labor or equipment which may have existed in the Southern States in the past are now relegated to the limbo of forgotten things.

Control over temperature and humidity, they explain, is the key to Southern manufacturing progress. Name the kind of weather you want in your plant, copied from Detroit, Milwaukee or Lowell, Mass., or, if you choose, from Newport or Bar Harbor for six months of the year, and Palm Beach or Biloxi for the balance, and this industry can reproduce it for you to the precise moisture content and the last fraction of a degree of temperature.

The fact is that air conditioning, like many other industries, moved several strides forward during the war period. And now that the

air conditioning and refrigerating equipment manufacturers have about completed their reconversion, the industry will have a chance to demonstrate in peacetime production what it learned in war.

Part of the progress was in improving working conditions in manufacturing plants, in the interest of employee health, comfort and efficiency. Much other progress was made in the use of temperature and humidity control in order to facilitate industrial processes and methods and to produce the more efficient operation of machines.

The net result, some of the leading engineers and technicians of the industry contend, is that for the manufacture of most articles, the entire country has been put on sub-

stantially an equal footing, as far as considerations of climate are concerned. They contend, that the South can vie with the North for commercial supremacy in this and coming generations. Perhaps the balance, from a climatic standpoint, is now in its favor.

The industrial story, in a nutshell, is that man moved from the warmer to the colder zones, and established industries in the latter, only after he could produce heat. Working over a hot forge, it developed, was not too pleasant under a tropical sun. It was not until the passing of thousands of years that man learned to produce cold as well, and not until recent times that he mastered the science of interior temperature controls. Now man can not only harness heat—he can dispose of heat. He can produce cold mechanically. He can cool rooms, offices, stores, factories and large enclosed spaces.

The effect on industry is certain to be revolutionary. Possess the sources of energy and the raw materials, and climate no longer need be a factor in the location of an industrial city. Already, because of the available power and raw materials, much industry in recent decades has been establishing itself in the South. A view of some of the contributions of industrial refrigeration and air conditioning may answer whether that industry will help accelerate this transition.

First, a glance at working conditions. However we may want to forget the hot days, we know they are enervating, whether they come above or below the Mason-Dixon Line. Perhaps there are few spots in the world which can boast of a salubrious climate in which man can work at peak efficiency throughout the whole year. One difficulty is heat, another is humidity, and still another, in our modern cities and industrial regions, the air-borne dust and dirt. Under extremes of temperature and humidity, the average individual functions less certainly, and is likely to become tired or irritable.

Department stores, restaurants, other customer-contact businesses have found that air conditioning brings in customers, holds them longer, and builds sales by increasing both the number of patrons and the average sale per individual. It

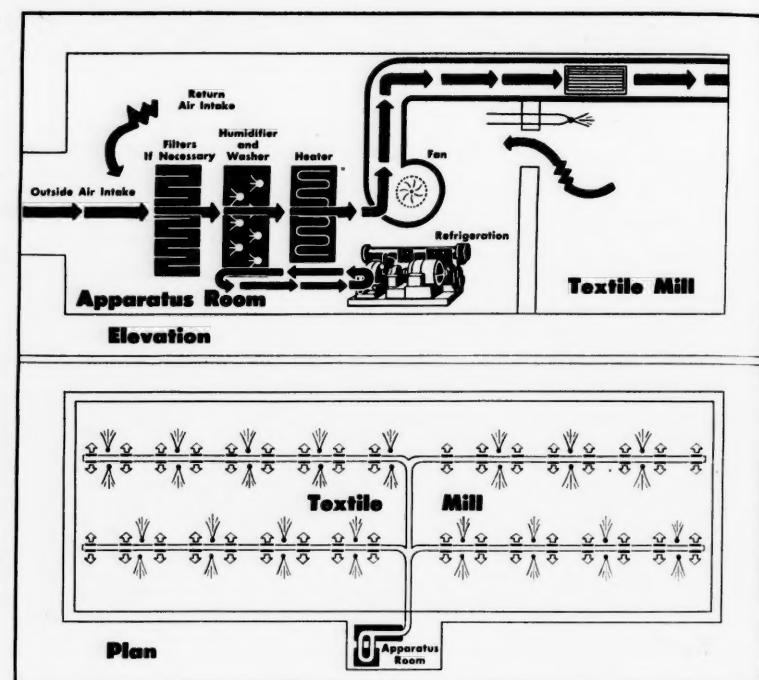
keeps the sales help cool, more friendly and unruffled. In factories, the proper temperature and humidity control means greater production efficiency, a saving in dollars, lower unit costs. This applies in any climate, but it is of first importance to the South, where the hot season is longer.

Many tools and materials are not as pliant to temperatures as man. While the individual may overcome the irritation or lethargy produced by heat or humidity, the chocolate becomes sticky, steel expands and chemicals deteriorate. Processing machines will depreciate and lose efficiency more rapidly. These have been problems in the North, during the hot months, as well. Much industry has been forced to remain seasonal, due to this single factor of heat. Seasonal industries adversely affected by heat are, of course, not so likely to have growth in the South, where the hot season is longer, unless these disadvantages can be overcome.

During war production it was demonstrated that for exactness, speed of production, and uniformity and interchangeability of parts, many articles had to be made under dirt-free atmospheric conditions that remained constant. In the early war days, the number of rejects from metal working shops became a matter of much concern. Deterioration, corrosion and lack of interchangeability were commonly experienced.

It was found that a part manufactured at 85 degrees, could not be expected to fit a part made at 68 degrees. Size has little meaning when it concerns metal parts unless it is size at a certain temperature. In some plants it was noticed that the parts made at different hours of the day varied beyond the maximum tolerance. All this demanded a remedy in a system calling for nationwide subcontracting and parts manufacture. Air conditioning then came into the picture. With temperature under control, a complete interchangeability of parts was possible even under the most exacting tolerances.

At the same time air conditioning acted to prevent corrosion and the scratching of highly polished surfaces. Corrosion, it was found, was largely caused by excess humidity or perspiration from the worker's



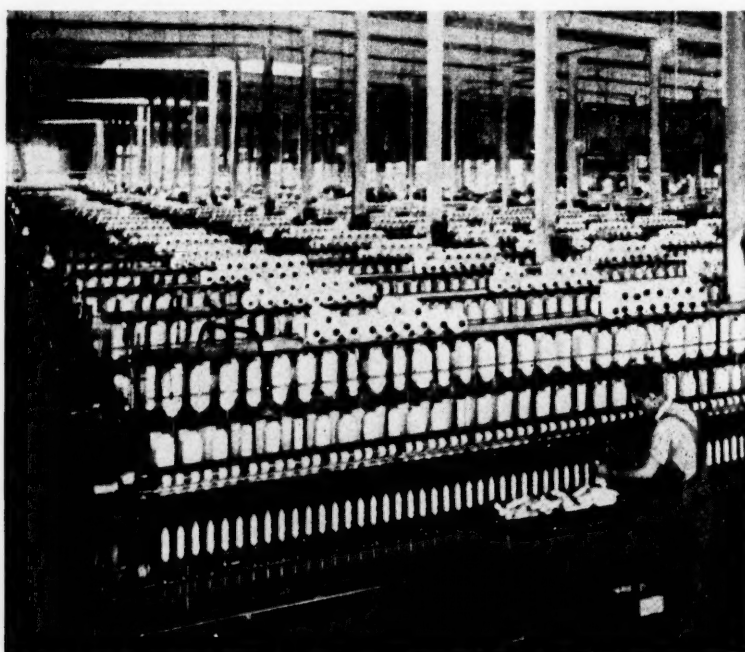
hands. Humidity control held in check the amount of water in the air and made for the rapid evaporation of perspiration so that it would not be transferred to the parts. The air filters cut out the airborne dust and dirt particles which were re-

sponsible for the scratching and the number of discards and unusable parts fell to a new low.

Both air conditioning and refrigeration have already aided in the growth of the great southern food

(Continued on page 62)

Below—A Carrier centrifugal refrigerating machine chills the water for dehumidifier that holds the temperature in this hosiery mill at 80 degrees.





Ramie Plants Growing on State Farm near Belle Glade, Fla.

Several Millions in Ramie Investment

HAS the secret of economically producing the Oriental wonder fibre, ramie, been solved by modern methods to permit the manufacture of textiles?

Upon the answer depends the launching of a new textile industry, described by the Federal Reserve Bank of Atlanta in its monthly review as "a new economic opportunity" and "a harbinger of what may well prove to be a revolutionary development in the textile world."

To furnish an answer to this question an investment of several million dollars is already represented in lands, pumping plants, canals, farm machinery and two large processing plants under construction in the Everglades in Palm Beach County. The investment is being constantly increased.

This is the largest ramie development in the United States. The results will be eagerly watched by the textile industry and by ramie growers in Mississippi, Louisiana, Texas,

by

Hamilton Wright, Sr.

California and other states where the fiber can be raised. Florida itself has hopes for the founding of a great industry. Cattle food will be a by-product as the dehydrated ramie leaves are richer in proteins than alfalfa.

Ramie, it should be explained, is one of the oldest known vegetable fibers in the world. The manufacture of ramie cloth is mentioned in the Imperial Treatise of Chinese Agriculture written in 2205 B.C. Ramie is one of the strongest vegetable fibers having a tensile strength equal to that of mild steel. It has wonderful wearing qualities. It mixes well with wool and rayon. It does not shrink, holds its shape and can be dyed readily. It is valuable not only for garments and household furnishings but also for use in industries

requiring strong fabrics. In London, during the war, ramie fire hose, 14 inches in diameter, was used to couple water systems when the mains were broken by bombs. But the Western world is only just awakening to the possibilities of ramie.

Tonnage is needed in ramie. There has never been in this country a constant source of supply of ramie in ample tonnage and of uniform quality. That is why it has not been commercialized to a great extent. One of the reasons for this, says J. M. Dempsey, an exponent of ramie, is because "ramie has been promoted too much by people who knew too little about it. And too little research has been carried out on ramie in the past. There were problems connected with every phase of ramie, including where it might be grown best, its culture, harvesting and most of all, suitable methods of fiber extraction. All of these studies could not be carried out by

any one individual and we have found they involved considerable expenditures of time and money."

Mr. Dempsey is associated with Newport Industries, Inc., of Pensacola, which together with United States Sugar Corp. owns large Everglades acreage southeast of Canal Point. The combined companies are now erecting on this site an initial pilot plant which will have a capacity to process 2,000 acres of ramie, of which 1,000 have been planted. The U. S. Sugar Corp. is the largest producer of sugar in Florida's Everglades and in the continental United States. Newport Industries, Inc., is noted for scientific commercial work in utilizing waste forest stumpage for production of terpene chemicals.

The other large corporation is the Florida Ramie Products Corp. This company is finishing a large processing plant on the highway two miles north of Belle Glade. It has purchased 5,000 acres of land for ramie cultivation. It has a contract to buy

ramie to be grown on State Farm No. 2, belonging to the State of Florida. Florida Ramie Products Co. received a loan of \$321,000 from the Reconstruction Finance Corporation. Cost of the plants of these two companies will exceed \$500,000.

Other companies will operate on a smaller scale. Sea Island Mills of New York City has a ramie planting around Lake Okeechobee at Moorehaven. Landone Foundation of Winter Park has done some planting at Zellwood.

Nathan Mayo, commissioner of

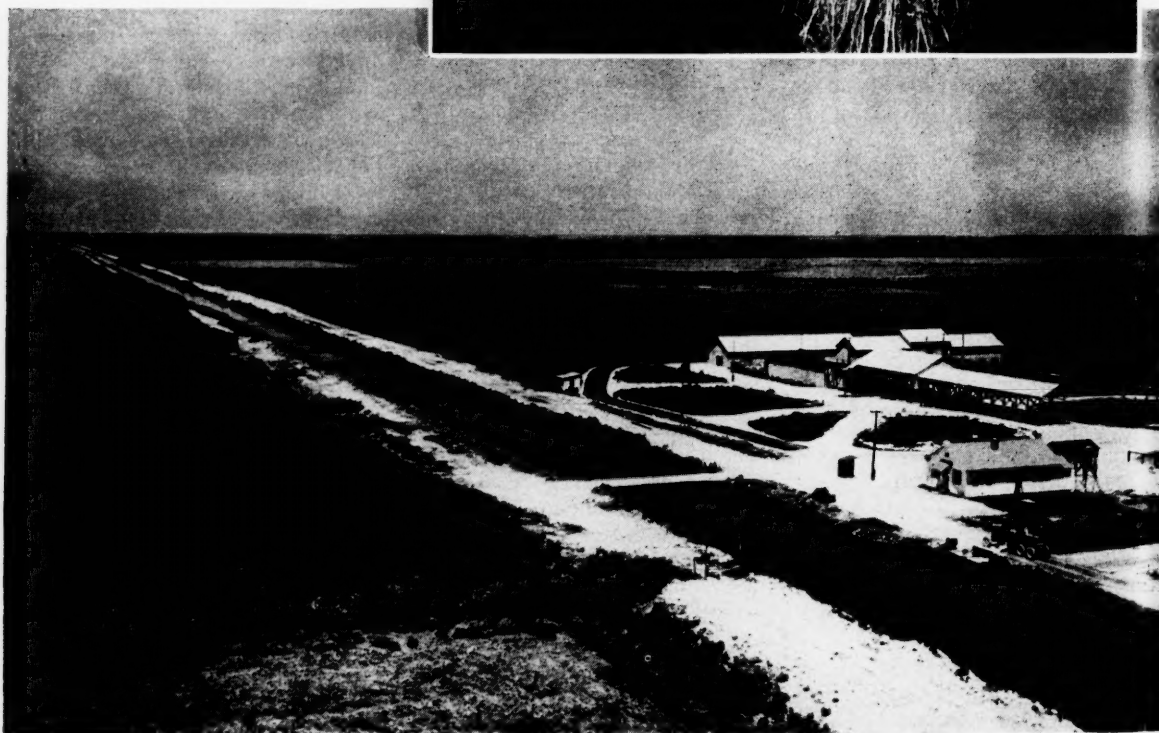
the Florida State Agricultural Department, was a leader in stimulating investigation into the possibilities of growing ramie in Florida. Another was the late F. E. Bryant, former vice-president of the sugar company and pioneer in the Florida Everglades sugar industry.

Mr. Dempsey was another careful investigator. In fact, the United States Sugar Corp. and Newport Industries began their joint venture in ramie only after four more years research by both companies. Their

(Continued on page 56)

Right—Ramie decorticator invented by W. B. Sminds, fibre expert in charge of the farm.

Below—Processing plant and part of the 1,000-acre plantation of United States Sugar Corp. and Newport Industries. This is the largest Ramie enterprise in America.



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Above—Downtown Birmingham is undergoing a face-lifting, with many stores being remodeled and several new structures under construction. This view is from the Jefferson Hospital, a \$2,000,000 building recently acquired by the state as a central building for a vast medical center and college.

Birmingham Surges Ahead

by
Depew Meredith

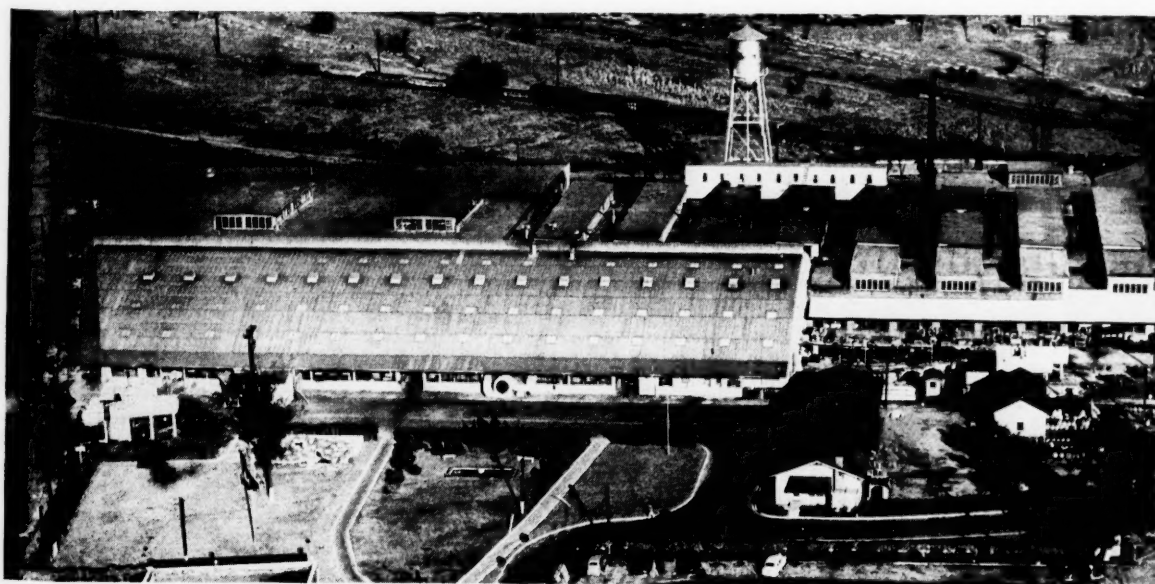
TWICE during the reconversion period, Birmingham, a heavy industry center, has felt the impact of strikes that cut off vital parts of its economy.

The city is a steel center. From its fields of coal and limestone and its mountains of red ore have come the materials for the steel that, within a little more than half a century, has built it from a mud road village to a city with more than a quarter million population. Due to the fact,

however, that its blast furnaces and rolling mills have been closed once by the steel strike and again by the coal strike since the end of the war, the city has not had a true opportunity to reconvert.

In spite of these troubles, Birmingham has continued to surge ahead. Its steel mills, enlarged during the

Below—A wartime plant that moved to Birmingham during the war and is now a permanent industry is the Rheem Manufacturing Co., which will produce household appliances.



war, have produced at top capacity in the periods of normal operation. Some of the products developed during the war have remained in production; some of the new plants that moved into the city are remaining as peacetime units, and some of the war-born industries have established a firm foothold.

As its part of the war effort, the industry of Birmingham naturally turned to machining and fabricating steel. Since the peace has come, much of this war-gained experience has gone into producing items made of this abundant metal.

Rheem Manufacturing Company, a producer of steel drums for the shipment of oil, moved into the city less than five years ago and bought the abandoned plant of the American Radiator Company. After producing shells, shell forgings, shell cases and aircraft parts, the company started reconversion to the manufacture of household appliances. Having spent \$850,000 on retooling and expansion, Rheem is now ready to produce nineteen items ranging from floor furnaces to attic fans.

More fortunate than most companies, Ingalls Iron Works, long established as a fabricator, turned to shipbuilding. With the fabricating yards in Birmingham, the company established shipyards at Pascagoula, Miss., on the Gulf of Mexico, and at Decatur, Ala., on the Tennessee

River. The end of the war found them with their books full of peacetime orders, and they continued to produce with little conversion trouble. They have since added the building of diesel locomotives to their accomplishments.

The largest strictly war plant in the district was the Birmingham Modification Center, built by the Bechtel-McCone Corporation for the modification of aircraft. At the end of the war the sprawling war plant was slated for abandonment, but local interests asked the Reconstruction Finance Corporation for a

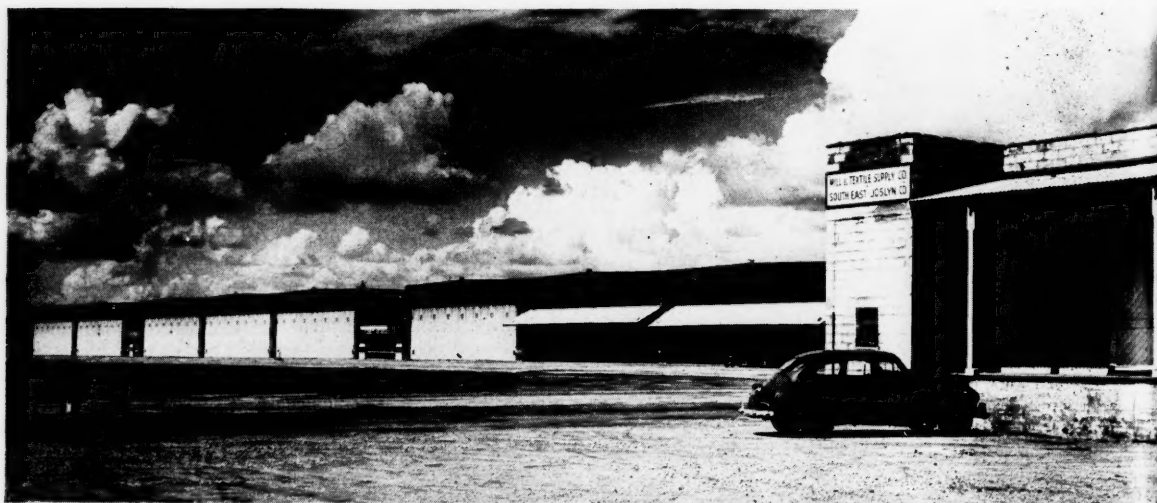
Above — A typical small industry in Birmingham is the Vulcan Metal Products Co., producers of aluminum window screens.

chance to turn the facility into a multi-industry center by dividing its space among a number of small manufacturers. This request was granted.

While all of the plant's 1,200,000 feet of floor space are not being used, there is still hope that a major production unit can be brought in to occupy the larger buildings. A number of small industries have been es-

(Continued on page 54)

Below—A war baby, this plant at the Birmingham Modification Center is being broken up into multiple occupancy units. The small outbuildings are being occupied by little industries and the hangars are beginning to fill with larger concerns.



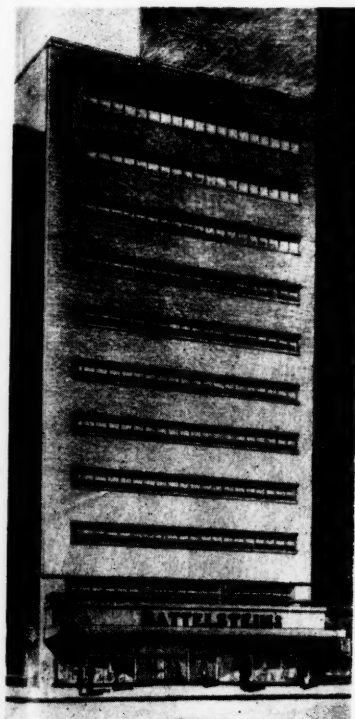


Above — New Munsingwear plant at Rogers, Ark. Largest no-seam nylon hosiery plant in the country, the \$186,000 plant was erected for Munsingwear by Rogers Industrial Corporation and represents an investment of more than \$1,000,000 with machinery.

Six Months' Southern Awards Total Over \$900,000,000

by
Samuel A. Lauver

Below—Battelstein's, Houston specialty store, is remodeling its building and adding six floors. The building will be refaced with stone and five elevators installed. Finger & Rustay are the Architects.



SOUTHERN construction totaled \$143,844,000 in June, making the aggregate for the first half of this year \$907,848,000.

The current June figure is almost three times the total valuation placed on contracts awarded below the Mason and Dixon line during the comparable month of last year, when the total stood at \$50,

018,000 for the sixth month.

The \$907,848,000 total for the first six months of this year is more than sixty-eight per cent ahead of the \$539,626,000 for the first half of 1945. The 1944 figure for the comparable period was less than one-half the current total.

Greatly increased totals for private building, engineering construction and

Below—Radiant-heated railroad station recently completed at Prince, W. Va., by the Chesapeake & Ohio Railway Co. The building is 125 feet long and 22 feet wide; Garfield, Harris, Robinson & Schafer, of Cleveland, were the architects; John P. Pettyjohn & Co., of Lynchburg, the contractors.





Above—Three-story steel and concrete building being erected at Birmingham, Ala., to house administrative and executive offices of Ingalls Iron Works Co., Ingalls Shipbuilding Corp. and Birmingham Tank Co. To be air conditioned, the structure will be 170 feet long, by 48.5 feet wide. Indiana Limestone will enclose masonry walls. A number of spandrels will be faced with Imperial black marble. Jack B. Smith is the architect.

highway and bridge work are mainly responsible for the high level of the total for the first half of 1946.

Last year at this time, when the \$539,626,000 for the first six months of 1945 showed a thirty-three per cent increase over the first half of the year before, the rise was chiefly due to higher levels of industrial construction, public building and highway work.

Private building during the current six months amounted to \$230,524,000, or in the neighborhood of nine times the \$27,189,000 for the similar period of 1945.

Sixty-eight per cent of the private building total for this year so far is for residential work. The total for this type is \$158,018,000. Other components of the

(Continued on page 54)

Below — \$6,000,000 naval hospital proposed at Beaufort, S. C. The main building will be 500 feet long, 600 feet wide. Originally authorized as a 500 bed institution, the hospital will have an initial capacity of 300 beds.



Southern Construction by Types

	June, 1946 Contracts Awarded	Contracts to be Awarded	Contracts Awarded First Six Months 1946	Contracts Awarded First Six Months 1945
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$ 1,968,000	\$ 9,211,000	\$ 16,596,000	\$ 4,502,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	2,075,000	4,006,000	43,423,000	3,362,000
Residential (Apartments, Hotels, Dwellings)	47,903,000	31,701,000	158,018,000	18,466,000
Office	4,197,000	5,729,000	12,087,000	859,000
	\$36,143,000	\$ 50,647,000	\$230,524,000	\$ 27,189,000
INDUSTRIAL	\$ 15,050,000	\$106,347,000	\$204,513,000	\$247,595,000
PUBLIC BUILDING				
City, County, State, Federal	\$ 25,146,000	\$ 30,813,000	\$ 80,808,000	\$108,580,000
Housing	266,000	105,000	966,000	14,256,000
Schools	6,233,000	26,825,000	49,661,000	11,062,000
	\$ 31,645,000	\$ 57,743,000	\$131,435,000	\$133,898,000
ENGINEERING				
Dams, Drainage, Earthwork, Airports	\$ 13,514,000	\$ 5,661,000	\$120,006,000	\$ 59,617,000
Federal, County, Municipal Electric	4,000,000	38,343,000	18,345,000	3,590,000
Sewers and Waterworks	4,205,000	36,534,000	27,091,000	19,443,000
	\$ 21,719,000	\$ 80,538,000	\$165,442,000	\$ 82,650,000
ROADS, STREETS AND BRIDGES	\$ 19,287,000	\$ 35,349,000	\$175,934,000	\$ 48,294,000
TOTAL	\$143,844,000	\$330,624,000	\$907,848,000	\$539,626,000

Seaboard Railway Receivership Terminated

Properties of Seaboard Airline Railroad Co. were set for return to operation under corporate management as of Aug. 1, thus terminating operation under the receivership which had its inception during the depression of the 1930s.

Heading the new operation, elected at a meeting of the board of directors July 31, are Henry W. Anderson, chairman of the board, and Legh R. Powell, Jr., president.

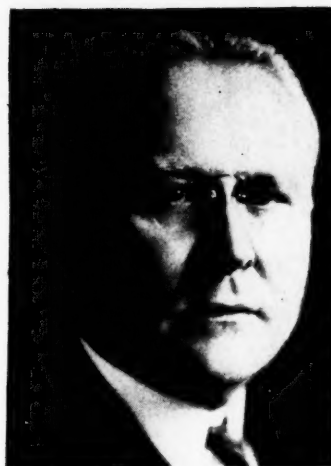
Colonel Anderson, a resident of Richmond, Va., during his career traveled the long road from stenographer for the old Richmond & Danville R. R. at West Point, Va., to the top-flight position he now holds as head of an important railroad directorate. It should be explained, however, that his earlier service in various railroad departments was undertaken as a preparation for law practice. Practical experience was supplemented by a scholastic interlude at Washington & Lee University, and thereafter followed a successful career as railroad counsel. Shortly after the Seaboard entered receivership, Colonel Anderson was appointed counsel for the receivers and later as co-receiver with his colleague, Legh R. Powell, Jr.

Mr. Powell, a native of Ports-

mouth, Va., cut short an early career in merchandising to join the Seaboard in 1902 at a salary of twenty dollars a month. He advanced steadily, becoming assistant to the comptroller in 1918, and comptroller in 1920. In 1921, he was elected vice president. In 1927, he was made president, and during receivership served as a co-receiver.

Other officers elected: R. Parke Jones and George B. Rice, vice presidents; W. R. C. Coker and Harold J. Gallagher, general counsel; L. L. Knight, comptroller; W. B. Pope, treasurer, and W. F. Cummings, secretary.

The new directorate consists of: Col. Anderson and Mr. Powell, Fred G. Boyce, Baltimore; Henry C. Breck, New York; William H. Coverdale, New York; B. M. Edwards, Columbia; Henry C. Evans, Baltimore; Joseph France, Baltimore; Otis A. Glazebrook, New York; Frederick N. Harrison, Richmond; Samuel H. Husbands, Washington, D. C.; Robert Lassiter, Charlotte; Joseph T. Lykes, Sr., Tampa; Robert Meyer, Birmingham; William Murphy, Savannah; Edward C. Roe, Jacksonville; Henry O. Shaw, Miami, and Eugene W. Stetson, New York.



H. W. Anderson, Seaboard Chairman of the Board.



L. R. Powell, Jr., Seaboard President.

New President Announced for Carnegie-Illinois

Benjamin F. Fairless, president, United States Steel Corporation, announces that Charles R. Cox has become president of Carnegie-Illinois Steel Corporation, succeeding J. Lester Perry, who has become assistant to president, United States Steel Corp. of Delaware.

Mr. Cox has been president of National Tube Company, another U. S. Steel subsidiary, since March, 1943.

Mr. Perry, who rose from a steel plant clerk to the presidency of Carnegie-Illinois Steel Corporation, retires as head of this United States Steel subsidiary and becomes assistant to the president of United States Steel Corporation of Delaware.

Civic Improvement

(Continued from page 36)

which will make the town a better place in which to live and an invitation to visitors to make their homes there."

From a city of several hundred thousand comes this: "The two-block downtown park with underground parking is one of the most impressive single improvements ever proposed for this city. It combines a beautiful civic development with a large part of the answer to a desperate parking problem. The park will be a sweep of landscaped greenery."

In four other large cities bonds have been voted for the purchase of rights-of-way for limited access expressway projects. The eventual expenditures on these projects will total \$33 million.

From widespread communities in the South came reports of plans for

a wide variety of improvement and beautification projects. These include off-street parking, parking meters, mass carrier systems, improved location of truck and freight terminals, ordinances against nuisances, contracts with communication firms for new telephone systems, enlargement of municipal water supplies, street improvements, better street and traffic lights and others running the gamut of needs for the useful type of city beautiful.

The time is ripe for municipal bond issues that can accomplish worthwhile objectives. It is true that bonds have to be paid off in time, and that revenue is necessary for this purpose. It is also true that municipalities are restricted in latitude when it comes to new means for increasing their volume of revenue.

Southern Industrial Expansions

ALABAMA

ANNISTON—Foundry Addition—Anniston Foundry Co., will build an addition to present building; to cost \$110,000; owner builds.

BIRMINGHAM—Locomotive Shop—Tennessee Coal, Iron and Railroad Co., plans diesel locomotive shop; to cost approximately \$176,000.

BIRMINGHAM—Steel Plant—Virginia Bridge Co., H. A. Davis, Mgr., plans steel fabricating plant and office building, estimated to cost approximately \$1,000,000.

EVERGREEN—Gas Plant—City received bids for liquefied petroleum gas plant and gas distribution system.

FAIRFAX—Addition—West Point Manufacturing Co. will build an addition to cotton mill to cost \$20,000; one-story, masonry construction.

JASPER—Radio Station—W. W. Bankhead is negotiating contract with Sullivan Long & Hagerty, Birmingham, for masonry block and frame radio station building with two studios, office, cost approximately \$12,000.

MONTGOMERY—Plant—Hazel-Atlas Glass Manufacturing Co., Wheeling, W. Va., let contract to John W. Hodgson Co., at \$1,000,000, for large glass manufacturing plant; Peter Loftus, Oliver Bldg., Pittsburgh, Pa., Archt.

MONTGOMERY—Plant—Dixie Packing Co., plans packing plant, to cost approximately \$500,000; Sherlock & Smith, 301 Washington St., Archts.

NEW HOPE—Freezer Plant—James C. Butler plans new freezer plant; to cost approximately \$24,000; owner will build.

ARKANSAS

DUMAS—Expansion—Delta Bottling Co., has acquired building at Waterman & B Sts., and has purchased new equipment in preparation for expansion program.

VAN BUREN—Canning—Pharr Canning Co., Inc., incorporated with Goodwin Pharr and Associates, Fort Smith, capital \$200,000.

WEST MEMPHIS—Terminal—U. S. Engineers making study of river-rail terminal, costing approximately \$1,500,000.

DISTRICT OF COLUMBIA

WASHINGTON—Boiler—Continental Baking Co., has CPA approval for installation of boiler, 641 S. W., N. W., \$32,000.

WASHINGTON—Alterations—Pan American Union has CPA approval for alterations to Pan American Union Building, 17th & Conn., cost \$47,700.

FLORIDA

DADE COUNTY—Farms—Hydro Farms, Inc., will erect two concrete beds of fifty each and two concrete tanks, County Road and 1,000 ft. north of Eureka Drive, cost approximately \$13,000; L. B. Taylor, 1113 Congress Bldg., Miami, Engr.; owner builds.

DADE COUNTY—Dairy Barn—Florida Dairies Co., J. F. Holt, 2534 N. Miami Ave., Miami, let contract to M. R. Harrison Construction Co., 285 W. 9th St., Hialeah, for one-story dairy barn, Bird Road and Snapper Creek Canal; M. M. Ungaro, 812 Olympia Bldg., Miami, Archt.; cost \$50,000.

DADE COUNTY—Boiler House—Miami Mills, Inc., LeJeune Road, let contract to Duffey Construction Co., 1452 N. Miami Ave., Miami, for one-story structural steel boiler house LeJeune Road and Seaboard R.R.; L. B. Taylor, 1113 Congress Bldg., Miami, Engr.

FORT MEADE—Washer and Flotation Plant—Swift & Company, Union Stock Yards, Chicago, Ill., states that materials and equipment for \$280,000 washer and flotation plant are being purchased direct from fabricators; structural and equipment installations by company forces.

FORT PIERCE—Plant—Georgia Fruit Corp., L. L. Lowry, Div. Mgr., contemplates construction of packing plant with capacity of 6 to 8 carloads of fruit daily.

LAKE WORTH—Power Plant—James H. Small & Co., Box 4780, Jacksonville 1, has contract for power plant structures.

MIAMI—Factory Building—R. R. Epling and P. J. Hoffman, 3411 NW 1st Ave., will erect one-story factory building, 3452 N. Miami Ave., costing \$13,000; Wayne Remley, 228 SW 19th Ave., Archt.; owner builds.

MIAMI—Dairy and Ice Cream Plant—Borden's Dairy, E. W. Krautz, Mgr., 32 NW 17th Ave., plans one-story structural steel dairy and ice cream plant, NW 2nd Ave. and 71st St.; cost \$180,000; Connell & Robinson Co., 350 Madison Ave., New York, Archt.; Jack Ross Co., 350 Madison Ave., New York and J. C. Dillion, 3319 Florida Ave., Tampa, Engrs.

MIAMI—Assembly and Warehouse Building—Giller Contracting Co., 523 Michigan Ave., Miami Beach, will build a one-story assembly and warehouse building at 174 NW

25th St., Gerard Pitt, 1102 Congress Bldg., Archt.; owner builds.

MIAMI—Warehouse—Raybro Electric Co., 1901 NW Miami Court, let contract to Witters Construction Co., 1745 SW 6th St., at \$48,750 for warehouse corner NW 1st Ave. and 8th St.

MIAMI—Factory—G. A. Knight, 7923 NW 7th Ave., Dade County, has permit for trailer factory, 274 NW 35th St.; one-story; 60x100; composition roofing; metal sash; E. S. Frederick, 47 NE 25th St., Miami, Engr., cost \$12,500; owner builds.

MIAMI—Factory—Laura Lee Candy Factory, 3530 N. W. 23rd Ave., let contract to Speeter & Sons, 421 N. W. 33rd Avenue, for one-story candy factory; metal sash; built-up roof; overhead door; E. A. Ehmann, 206 N. E. 56th St., Miami, Archt.

ORLANDO—Addition—Southern Bell Telephone Co., Orlando office, plans addition to present building; to cost approximately \$321,000.

PENSACOLA—Plant—St. Regis Paper Co., R. K. Ferguson, Pres., has acquired Florida Pulp & Paper Co.; purchased approximately 25% in Alabama Pulp & Paper Co.; construction underway by Alabama Pulp & Paper Co. of a new kraft paper mill with daily capacity of 250 tons on a site adjacent to Florida Pulp; a proposed new multiwall paper bag plant involving a cost of \$10,000,000 will also be integrated with the Florida Properties; Florida Pulp & Paper Co., with 195,000 acres of timberlands, is an integrated operation from pulpwood to paper with an annual production of 60,000 tons of bleached and unbleached paper and paper board.

SANFORD—Alterations—Florida Power & Light Co., plans alterations to power plant, cost \$45,000.

TAMPA—Warehouses and Offices—Major Appliances, Inc., let contract to Gates Construction Co., at \$100,000, for warehouse building with offices.

WAUCHULA—Generator, Alterations, Etc.—City has FWA advance fund for new Diesel generator, switchboard, appurtenances and power plant building alterations, to cost \$113,400.

GEORGIA

ATLANTA—Trucking Terminal—McDonough Motor Express, Inc., L. L. Majure, Meridian, Miss., plan two structures, one a one-story building to house administrative offices and dormitory for truck drivers; other a service garage to house trucks, parking aprons; to cost approximately \$75,000; Chris Risher, Archt., Meridian, Miss.

ATLANTA—Factory Building—Better Living, Inc., 339 Peachtree St. W., let contract to Ramsey & Co., 161 Spring St., N. W., for one-story factory building and a one-story kiln; private plans.

ATLANTA—Food Locker—Cecil E. Sears, 220 Maccoche Dr., N. W., plans frozen food lockers, to cost approximately \$12,000; to be erected at 2391 Peachtree Rd.

CUMMINGS—Poultry Freezer and Lunch Room—Wilson & Co., Chicago, Ill., plans poultry freezer and women's lunchroom; to cost approximately \$17,000.

EXPERIMENT—Laboratory—Georgia Agricultural Experiment Station, plans horticultural laboratory, to cost approximately \$70,000; Daniel H. Brown, Candler Bldg., Atlanta, Archt.

ATLANTA—Service Garage—Wade Motor Co., 405 Spring St., plans one-story service station and garage; to cost approximately \$40,000.

GRIFFIN—Addition—Newton Coal & Lumber Co., has contract for one-story bleachers addition to Dundee Mills, J. E. Sirrine & Co., Greenville, S. C., Engrs.

MARIETTA—Hosiery Mill—Clark Realty Co., will construct hosiery mill, brick walls, reinforced concrete floor, built-up roof, cost approximately \$60,000.

MARIETTA—Pottery Plant—Marietta Industrial Assn., R. L. Coggins, will build a one-story pottery manufacturing plant; Bothwell & Nash, Archts.; W. C. Padillo, Supt. of Construction; owner builds.

PORT WENTWORTH—Plant—Southern Paperboard Corp., let contract to Daniel Construction Co., 429 N. Main St., Greenville, S. C., and Birmingham, Ala., for construction work necessary for erection of 450-ton liner board and pulp mill; total investment for complete development, \$12,000,000; J. E. Sirrine & Co., Greenville, S. C., Engrs; work to start about early September.

SAVANNAH—Box Factory—Union Bag and paper Corp., Alexander Calder, Pres., will erect new box plant for manufacture of kraft corrugated shipping containers at Butler Ave., cost approximately \$3,000,000; Streamlined, modern one-story of concrete blocks and

steel construction; 160,000 sq. ft.

SAVANNAH—Chimney—Union Bag & Paper Corp., T. T. Dunn, resident manager, has started work on the electrical precipitator equipment, designed to eliminate smoke and odors that result from gases released in the kraft pulp manufacturing process; cost of equipment together with rearrangement of breeching to present stacks, and removal of other equipment from the site, approximately \$500,000.

VALDOSTA—Millwork Shop—J. N. Bray Co., plans millwork shop to cost approximately \$40,000; owner will build.

WAYCROSS—Plant—W. A. Cauley, Box 506, builds packing plant to cost \$60,000; owner builds.

LOUISIANA

DONALDSONVILLE—Locker Plant—Freeze-All Foods, Inc., let contract to Thomas Bryan & Associates, Lafayette, for equipment for new freezer locker plant.

LAFALETTE—Brewery—Lafayette Brewing Corporation, Dudley J. LeBlanc, Pres., plans brewery.

LAKE CHARLES—Plant—Hercules Powder Co., plans leasing \$14,000,000 ammonia plant; will produce nitrogen and increase fertilizer supplies.

LAKE CHARLES—Addition—Large Thompson Co., Atlanta, Ga., has contract for addition to rear of present telephone exchange building for Southern Bell Telephone and Telegraph Co., cost approximately \$95,000.

LAKE CHARLES—Warehouse—United Gas Corporation let contract to Louisiana Western Construction Co. for brick veneer warehouse and distribution center at corner of 12th and Kirkman Sts.

MADISONVILLE—Gas System—Clemon Bepouey Jr. and Co., Canal Bank Bldg., New Orleans, has contract for gas distribution system complete including gas transmission line metering and regulating station and gas distribution system, \$71,696.

MORGAN CITY—Transmission Pipe Line—City, Hon. Maurice D. Sahannon, Mayor, received bids for natural gas transmission pipe line from Berwick Field, approximately four miles including submarine crossing of Intracoastal Canal and submarine crossing of Atchafalaya River and also natural gas distribution system including regulator station, pipe line mains, laterals and service pipes, meters and regulators etc.; T. Baker Smith, Houma, Engr.; \$246,000 bond issue available.

NEW ORLEANS—Shop and Office—Boh Brothers Construction Co., 2400 Cypress St., has contract for three story steel, concrete and brick shops and office building at Market Street generating plant on S. Peters and Richards Sts., for New Orleans Public Service Inc., Baronne and Union Sts.

NEW ORLEANS—Plant—Southern Division, Borden Co., plans large dairy and ice cream plant; A. Hays Town, Masonic Bldg., Baton Rouge, Archt.

ST. MARTINSVILLE—Plant—Paul Dowd, Meridian, Miss., let contract to Hinton Construction and Building Co., for pecan shelling plant on the New Iberia Hwy.

MARYLAND

BALTIMORE—Warehouse—O. F. Wentworth & Co. let contract to Edward Elliott for masonry warehouse at 115 W. Hamburg St., Private plans; cost \$14,000.

BALTIMORE—Facilities—The Baltimore & Ohio Railway Co., Baltimore, constructed new facilities for handling of livestock on Pier 7 of Locust Point Marine Terminal for shipment overseas; work done by company's forces.

BALTIMORE—Building—National Gypsum Co. let contract to Baltimore Contractors, 711 S. Central Ave. for building at 4700 Newgate Ave., cost \$12,000; Private plans.

BALTIMORE—Addition—Consolidated Gas Electric Light and Power Co. of Baltimore has CPA approval for installing another turbo-generator in an addition to Riverside Power Plant; consists of 60,000 KW turbine generator, a boiler rated to produce 550,000 lbs. of steam per hour, condenser, coal handling equipment and other auxiliaries, cost approximately \$7,000,000.

BALTIMORE—Alterations—Schwartz Realty Co., let contract to Talles Construction Co., for alterations to building, 1123 N. Charles St.; private plans.

BALTIMORE—Addition—Samuel Hoffberg, let contract to Aetna Construction Co., 5318 Beaufort Ave., for addition to building, 930 East 22nd St.; masonry; one-story; cost \$10,000.

BALTIMORE—Warehouse—John A. Gangi, 1107 Low St. will erect one-story masonry warehouse, 1137-53 McDelderry St., cost \$18,000.

BALTIMORE — Parts Depot—International Harvester Co., Chicago, Ill., let contract to Morrow Brothers, Inc., 2315 N. Charles St., for one-story masonry parts depot building, Washington Bldg.

FROSTBURG — Expansion—Michael Berkowitz Co., Inc., interested in expansion; local interests considering proposal to erect and equip \$250,000 factory; Mayor Marshall Skidmore, William B. Yates, E. I. Prichard, Ira Langcluttig and F. Earl Kreitzburg, members of Committee; plans surveying site.

MISSISSIPPI

BAY SPRINGS — Factory — Krouse & Yarbrough, 206 WMOX Building, Meridian, Archts., revising plans and specifications for factory building, bids being opened; estimated cost \$75,000, for J. T. Oberman Co. of Jefferson City, Mo.

BAY ST. LOUIS — Millwork Plant — Imperial Wood Products Co. plans establishing \$35,000 millwork plant.

BILOXI — Plant — Fish Meal Co. will soon start construction of new plant.

CORINTH — Building — Daily Corinthian Publishing Co., plans two-story building, to house offices and printing plant.

FOREST — Bonds—Scott County, Supervisors' District No. 3 will hold election soon on issuance of \$125,000 bonds for erection of plant for manufacture of road machinery and earth moving equipment.

GREENVILLE — Bakery — D. L. Beach, Pres. Delta Bread Co., awarded contract at \$250,000 for new bakery plant on Hwy. 82, east and new Hwy. 1, in Greenville.

GREENVILLE — Pipeline — Tennessee Gas and Transmission Co., P. O. Box 2511, Houston 1, Tex., doing preliminary engineering work on proposed aerial pipe line crossing over Mississippi River near Greenville; will probably be next year before plans have progressed to point of asking for bids.

GULFPORT — Drug Plant—Sterling Drug Incorporated, let contract to George P. Hopkins, at \$600,000, for Phillip Milk of Magnesia plant; W. Stuart Thompson, Thompson, and Phelps Barnum, 250 Park Ave., New York, Archts.

LAUREL — Plant—Reliance Manufacturing Co. planning to establish a new plant.

LIBERTY — Bonds—Amite County, First Supervisors' District, will hold election August 27 for \$100,000 bond issue for garment plant.

LOUISVILLE — Plant—National Automotive Fibres, Inc., C. M. Miller, Pres., Detroit, Mich., has grading of site started for proposed \$300,000 automobile upholstery plant; to be of brick construction with saw-tooth roof and will comprise approximately 80,000 sq. ft. of floor space; N. W. Overstreet, Jackson, Archt.

MOUNT OLIVE — Building — Rathborne, Hair & Ridgeway, Chicago, leased site for manufacture of lumber and veneer stock.

NATCHEZ — Bus Station — Dohall-Kessels Associated Archts., and Engrs., Baronne Bldg., New Orleans, are receiving bids for new one-story bus station building, for the Southern Bus Lines, Inc.

NEWTON — Plant—R. W. Naef, Jackson, Archt., will soon have plans complete for \$150,000 garment plant, to be constructed by the Town of Newton, for Ike Isaacs, Baltimore, Md.; bids to be received sometime in September.

PITTSBORO — Bonds — Calhoun County Supervisors' District No. 4 will hold election for \$30,000 bond issue for addition to garment plant.

POPLARVILLE — Garment Plant—Pearl River County Board of Supervisors receiving bids for garment factory building; Shourds, Mozabab & Bean, Gulfport, Archts.

STARKVILLE — Plant — Belmont Shirt Co. considering establishment of plant to employ 150 workers.

MISSOURI

JOPLIN — Improvements — The Empire District Electric Co., plans \$5,000,000 construction and improvement program in Missouri, Kansas and Arkansas; includes erection of 154,000 volt transmission line from company's Riverton plant to Aurora where it will connect power lines extending to northern Arkansas.

ST. LOUIS — Building—International Paper Co., 220 E. 42nd St., New York, N. Y., purchased assets and good will of Scharff-Koken Manufacturing Co., makers of shipping containers.

ST. LOUIS — Ajax Management Co., 1001 Mullanphy, let contract to Murch Jarvis Co., 718 Locust, for one-story factory, gas unit heating, 6200 N. Broadway, cost \$120,000.

NORTH CAROLINA

NORTH CAROLINA — Plants—Western Electric Co., 195 Broadway, New York, pur-

chased two manufacturing plants at Winston-Salem and Burlington.

ASHEBORO — Hosiery—Martha Mills, Inc., incorporated with Leon J. Brandt, to deal in hosiery, \$100,000.

CHARLOTTE — Conversion — National Carbon Co., Inc., has underway conversion of recently acquired plant from RFC, for manufacture of "Eveready Mini-Max" batteries in a variety of models, including those for hearing aids, radios and numerous other uses.

FAYETTEVILLE — Textiles — Edna Textile Corp., incorporated with Edna Conniffe to sell textiles, \$25,000.

GASTONIA — Bus Station — Wooten & Wooten, Latta Arcade, Charlotte, Engrs., to prepare new plans for bus station for Queen City Coach Co.

GRAHAM — Hosiery—George C. Neal, Inc., to deal in hosiery, \$100,000, incorporated.

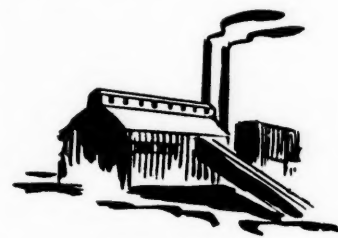
HENDERSONVILLE — Plant — Skyland Processing Co., let contract to R. K. Stewart & Son, High Point, at \$500,000, for two-story food processing plant; E. R. Stillwell, Archt.

MT. AIRY — Warehouse—Vance Dearmin & Associates let contract to Matt Hines for tobacco warehouse.

NEW BERN — Structures—H. A. Hulijian & Co., Philadelphia, Pa., has contract at \$164,505 for Contract No. 2, power plant structures. **SALISBURY** — Chartered—Cartex Mills, subscribed to by Ben R. Rudisill, Dorothy Rudisill, Thomas Borland and Margaret Borland, for authorized capital stock of \$1,000,000 has received a charter to deal in textile fabrics.

WASHINGTON — Power Plant Equipment—General Electric Co., Philadelphia, Pa., has contract for turbine for power plant equipment for City, William C. Olsen, Raleigh, Engr.; C. H. Wheeler Manufacturing Co., Philadelphia, Pa., has contract for condenser.

WILSON — Processing Plant—Neuhoff Company, Salem, Va., plans establishing a food processing plant.



SOUTH CAROLINA

BAMBERG — Refrigeration — Bamberg Electric Refrigeration Cooperative, Inc., let contract to Frick & Co., Atlanta, Ga., at \$10,942, for furnishing and installation of refrigeration system (equipment only) for a freezer locker plant; Southern Engineering Co., 1070 Spring St., N. W., Atlanta, Ga., Engr.

CHARLESTON — Plant — Charleston Construction Co., received permit to erect \$85,000 building for Naco Fertilizer Co.; permit for \$100,000 building taken out in May.

CHARLESTON — Model Laundry and Dry Cleaners, Inc., recently organized with \$50,000 capital stock; employ 15 to 20 workers; J. Powell Strobel, Pres., J. A. Reynolds, Vice Pres.

CHARLESTON — Plant — George Marsus will locate plant in Stark hospital area; manufacture condiments, flavoring extracts and syrups; roast and blend coffee.

CHARLESTON — Plant—Charleston Veneer Co., John B. Shannon and Lee H. Thomas, co-owners, constructing \$100,000 veneer and plywood plant.

CHARLESTON — Plant — Marine Products Corp., 795 Lexington Ave., Brooklyn, N. Y., establish plant at Charleston Port Terminals property; company manufactures wood, canvas and rope products.

CHARLESTON — Plant — Tee Optical Products Corp. plans to establish plant in several buildings of Stark General Hospital; manufacture plastic products for national distribution.

CHARLESTON — Radio Station — Radio Station WCSC granted permission to increase power to 5,000 watts. Charleston Broadcasting Company is chartered; Harry J. O'Neill, Pres.

ERHARDT — Building—Home Food Packers Corp.; Samuel Fessler, Pres.; total investment approximately \$1,000,000.

RIDGELAND — Factory—Jasper Development Co., let contract to William P. Crosland, Columbia, at \$73,487, for shirt factory.

ROCK HILL — Plant—Celanese Corporation of America, 180 Madison Ave., New York, plans construction of large plant for manufacturing cellulose acetate and celanese yarns

spun from cellulose acetate; cost approximately \$10,000,000.

SENECA — Plant Addition—Daniel Construction Co., Greenville, has contract for \$1,500,000 for manufacturing plant addition to Utica & Mohawk Mills, Inc.

SUMTER — Incorporation — Red Rock Bottling, Thomas M. Stubbs, Pres., capitalized at \$30,000.

TENNESSEE

CELINA — Power Plant—Morrison Knudsen Construction Co., Boise, Idaho, has contract at \$1,720,331 for power plant at Dale Hollow Dam, Clay County, near Celina.

FAYETTEVILLE — Line—Lincoln County Electric Corporation, B. M. Sanders, Mgr., plans 442 miles of rural power lines, cost approximately \$350,000; Sullivan & McWhorter, Nashville, Constl. Engr.

HUMBOLDT — Hosiery Mill—Wayne Knitting Mill, Fort Wayne, Ind., let contract to Daniel Construction Co. for hosiery mill, structural steel frame, cost approximately \$1,000,000; Virginia Bridge Co., Birmingham, Ala., has structural steel award; Lockwood Grene Co., New York, N. Y., Archts.

LEXINGTON — Bottling Plant—Coca-Cola Bottling Co., Memphis, plans one- and two-story bottling plant; Everett Woods, St. Madison Bldg., Memphis, Archt.; Robert Brown, Memphis, Assoc. Archt.

LINDEN — Factory — City let contract at \$105,000 to Cowan Lumber & Planing Material Co., Dickson, for factory building; Heavner & Parish, Jackson, Archts.

TEXAS

BEAUMONT — Building—General Electric Co., Beaumont, let contract to O. W. Collins, Port Arthur, for construction of one-story, steel, brick, concrete, and hollow tile building; 120 x 100; concrete foundation; W. B. Livesay, Third Floor Annex, San Jacinto Life Building, Beaumont, Archt.

CORPUS CHRISTI — Warehouse—Bartsch Office Furnishings, 313 Aubrey St., plans warehouse, to cost approximately \$27,000.

DALLAS — Shop—Sam Lomanaco, 2013 Ross Ave., let contract to Earl King, 3310 Swiss Ave., for radio and appliance shop building, cost approximately \$10,000; F. J. Woerner, 911 Clermont St., Archt.

DALLAS — Warehouse — F. J. Woerner & Co., 911 Claremont St., Archt., has plans complete for one-story warehouse at Haskell & Isbell Sts. for the American Produce Co.

DALLAS — Plant — Ruberoid Company let contract for \$1,000,000 plant to produce asphalt and asbestos-cement roofing and siding and allied building materials; to employ 400 workers; main building to be approximately 100 feet wide and 800 feet long; site located on Eagle Ford Rd. between Dallas and Fort Worth; plant to be in operation in 1947; Robert E. McKee, Contr., 2708 Inwood Rd.

DALLAS — Power Station—Dallas Power & Light Co., plans power transformer station, cost approximately \$588,700.

DALLAS — Building—A. L. Silver, received low bid from Miller and Norton, for two-story factory building on Main and Crowds Sts.

DALLAS — Building—Holister Coil Spring Manufacturing Co., 2932 Commerce St., has acquired five acre tract for erection of four factory buildings; one of the buildings to be occupied by an affiliate, Premier Metal Products Co., for distribution of sash and door jobbers, aluminum overhead garage doors and hardware for garage doors; company to expand to fabrication and double-hung aluminum window sash; another of the buildings to be occupied by Stanley Overby Chair Co. of California, manufacturing an upholstered furniture product; Maj. Glenn T. White, Manager of Holister Coil Spring Manufacturing Co.

DALLAS — Warehouse—Fred F. Alford & Co., Merchants Cold Storage Building, plans expenditure of \$2,000,000 for warehouse project; negotiations for 60-acre site have been completed; project will provide 13,200,000 cu. ft. of storage space, and will be the first unit of a proposed \$5,000,000 development program by the Company; docking space for sixty freight cars, as well as 300 trucks to be provided.

DALLAS — Factory—Rolinick Hat Co., 920 Bellevue St., let contract to Vivrett & Vivrett, Southland Life Bldg., for one-story factory building at 920 Bellevue St., to cost approximately \$58,000; George L. Dahl, Archt.

DALLAS — Factory—Holister Coil Spring Manufacturing Co., 2932 Commerce St., plans factory building at Singleton Blvd., to cost approximately \$125,000; Blocker & Hundley, 2912½ Hall St., Archts.

DALLAS — Laboratory—Nathan Wohlfeld, P. O. Box 7084, Dallas, has contract for laboratory building, 3700 block Mockingbird

(Continued on page 50)

Southern Industrial Expansion

(Continued from page 49)

Lane, Atlantic Refining Co., Magnolia Bldg., owners; Wyatt C. Hedrick, Box 4265, Dallas, Archt.

FORT WORTH—Building—Chicago, Rock Island & Pacific Railway Co., receives bids August 14 for freight terminal and office building; Wyatt C. Hedrick, 1005 First National Bank Bldg., Archt. and Engr.

FORT WORTH—Plant—Ed. L. Baker will erect steel and tile plant on three acre site in Riverside Industrial District, cost \$125,000; Harding Bag and Burlap Co., New Orleans, La., will occupy plant, and manufacture fabric bags and burlap.

FORT WORTH—Building—Southwest Chevrolet Co., let contract to B. B. Adams & Son, 1st National Bank Building at \$56,712, for construction of auto building; W. G. Clarkson, 610 First National Bank Building, Archts.; Fortune-Blanke Co., 2142 Mistletoe Boulevard, Fort Worth, contract for plumbing; Shotts Electric Co., 905 Throckmorton, Fort Worth, contract for electric work.

FORT WORTH—Factory—Iowa Soap Co., H. D. Banta, Pres., Burlington, Iowa, has acquired eight acres of land for erection of \$1,000,000 soap factory; will handle 25,000,000 lbs. of soap annually; brick, tile and mill construction to be used in the building; truck loading platform and two spur railroad tracks will be at rear of plant; from four to six outside material storage tanks with a capacity of 1,000,000 lbs. each, and numerous tanks within the factory; steam for power plant to be provided by a power plant with two 300-horsepower boilers and auxiliary equipment; cafeteria for employees; products include soap powder, soap flakes, toilet soap, mechanics soap and industrial bulk soaps.

FORT WORTH—Factory and Shop Building—Archer House Co., will build a one-story factory and shop building at 3700 N. Grove; owner builds.

FREESPORT—Wharf—Dow Chemical Co., Charles S. Frink, Purchasing Agent, has CPA approval for constructing wharf; 50x300; reinforced concrete and sheet pile bulkhead, cost \$156,000; filed application with U. S. Engineers, Galveston.

FREESPORT—Deepfreeze Plant—City, C. G. Pearce, City Engineer, filed application with FWA for \$13,750 advance for planning deepfreeze plant, cost approximately \$581,250.

GARLAND—Conversion—Sieberling Rubber Co., leased former Continental Motors Corp.'s plant, for manufacture of tires and other rubber products; will expand approximately 33,000,000 for conversion.

HOUSTON—Warehouse and Shop Building—Port Houston Iron Works, J. E. Gough, Pres., plans warehouse and shop building at 7220 S. Harbor Dr.; Ben Still, Engr.

HOUSTON—Plant—Kagan & Rudy, let contract at \$14,000 to Irving Gluck, for one-story manufacturing plant at 2110 Chartres St.

HOUSTON—Warehouse—Texas Solvents & Chemical Co., let contract to R. P. Farnsworth & Co., Inc., Box 74, for construction of warehouse and pump house with concrete foundations, Market Street Road; Harvin C. Moore, 2008 W. Alabama Ave., Archt.

HOUSTON—Terminal—Southwest Greyhound Lines, Inc., T. W. Tibbett, Fort Worth, let contract Arch. Mann & Sons, Dallas, for bus terminal on Texas Ave., between Austin and LaBranch; building will cover an area of 150' x 100'; bus concourse will occupy an additional 50' x 250' ft. and part of the building will be two stories in height; Grayson Gill, Great National Life Bldg., Archt.

HOUSTON—Plant—Diamond Alkali Co., John T. Richards, Pres., Pittsburgh, Pa., plans an electro-chemical plant on a 280-acre tract on south side of the Ship Channel, near Deer Park, estimated cost \$6,000,000; will produce chlorine, caustic soda, and muriatic acid; buildings will include eight structures covering 40 acres and will be of steel with asphalt roofing and siding.

HOUSTON—Warehouse—Woestemeyer & Gaffney, 2351 Claremont Lane, Archts., have plans in progress for warehouse buildings at McKinney Ave.

ORANGE—Addition—Consolidated Steel Corp. of Texas, has plans in progress for construction of two crane runways and extend structural steel fabrication shop building, cost \$350,000; CPA approval.

PORT ARTHUR—Factory—U. S. Steel Products Co., subsidiary of U. S. Steel Corp., has acquired 18.85 acres of land near City, for erection of a steel drum factory.

SAN ANGELO—Addition—John Stribling plans addition to present building of Frozen Food Plant, to cost \$10,000; D. C. Maddux, 1004 South Oaks St., Archt.

SAN ANTONIO—Plant—Kelson Furniture Co., received low bid at \$50,977, from Vincent & Anthony Falbo, P. O. Box 4291, Station A,

for two-story furniture plant building facing Florida St., on Southern Pacific Tracks; Spillman and Spillman, 10 and 11 Chandler Bldg., Archts.

UVALDE—Factory and Depot—Carl Szafranski, let contract to J. C. Williams for one-story ice cream factory and milk processing depot building; Francis S. Ankrom, 2005 South Hackberry St., San Antonio, Archt.

WICHITA FALLS—Building—Rodeo Boot Co., let contract to Taylor-Howe Co., Wichita Falls at \$43,000, for one-story, 100x100 ft., brick and tile factory building; M. T. Clements, 429 Waggoner Building, Archt.

WICHITA FALLS—Station—Times Publishing Co., Ed Howard, Pres., let contract to

B. O. Howle, 2204 9th St., for radio transmitter building, Seymour Road, 30 x 40. Ray C. Arnhold, Allison-Duncan Bldg., Wichita Falls, Archt.

VIRGINIA

FRONT ROYAL—Plant—General Chemical Co. of New York, has acquired sulphuric acid plant at Front Royal.

SUFFOLK—Refinery, Etc.—Planters Nut & Chocolate Co., received low bid of \$465,915 from Wise Contracting Co., Richmond, for refinery, packing building, oil mill and boiler house.

WEST VIRGINIA

WEST VIRGINIA—Expansion—Dorman Mills, Inc., of West Virginia plan a two-year program of expansion at a cost of \$60,000 that is expected to double production. Planned added floor space will bring total to 60,000 square feet. Additional new equipment in proportion will be installed.

News from Industry

Bucket Elevator Announced

A new, internally loaded, loop-type bucket elevator, to be known as Link-Belt "Internal" Bucket Elevator, is announced by Link-Belt Co., Chicago, Ill., as being particularly suited to the gentle handling of delicate, relatively small manufactured parts through a generally upward direction. The primary object of this invention is to provide apparatus for elevating, or transporting in a generally upward direction, without being mashed or otherwise damaged either in transit or during feeding or discharging, relatively small, manufactured articles or objects which, because of their size, irregular shape, structural thinness, hollow construction, etc., and/or the materials from which they are formed, cannot be handled safely by conventional elevating equipment. The elevating medium consists of an endless series of overlapping, inwardly-opening continuous buckets supported on the pins of a wide, power-operated strand of "SS" type steel roller chain which is operated slowly over sprocket wheels at top of lift, and at foot is guided by curved steel angle tracks. There are no foot sprocket wheels. A 4-page illustrated Folder No. 1983 has been prepared to cover the new machine. Copies are available at the nearest Link-Belt office.

Strapping Machine Available

Signode Steel Strapping Co., Chicago, announces the new A-2 Seal Feed Strapping Machine for production strapping on conveyor or centralized shipping systems. It is claimed that this semi-automatic one-piece strapping tool tensions, cuts and seals in three continuous operations, and that it will strap boxes, cartons, crates, packages or bundles in a wide range of sizes and weights. A-2 is available for use with 3/8-inch by .015, 3/8-inch by .020, 1/2-inch by .015, 1/2-inch by .020 strap. Aluminum castings house the hardened steel moving parts. The counter-balanced arm of the Tool Mount permits the strapping machine to swing into strapping position. When the strapping operation is completed the Tool Mount raises the strapping machine from the package or box.

Steel Welded Type Dipper

American Manganese Steel Division of the American Brake Shoe Co., Chicago, Heights, Ill., has introduced the Amco All-Manganese Steel Welded Type Dipper. When fitted with a door and bail of adequately strong design, this dipper is somewhat lighter in weight than the Amco patented Renewable Lip Dipper. If made with a lightly constructed door and hinges, as generally used in light weight dipper, it will not exceed the weight of any composite-type fabricated dipper that is sufficiently strong to do a good job. The Amco all-manganese steel welded type dipper is made in capacities of 3/4 cu. yard and up. Sizes 3/4 yard to 2 yard are made in two body pieces, front and back. Sizes over 2 yard are made in four pieces; front, back and two side plates.

More information on this dipper may be obtained from the company.

ACF Makes Staff Changes

Announcement is made that Robert W. Ward has been elected a Vice-President of American Car and Foundry Company and placed in charge of manufacturing. Mr. Ward was previously District Manager of the ACF Huntington, West Virginia plant. He will make his headquarters in New York. W. E. Langer, General Superintendent of the ACF Huntington, West Virginia plant, has been appointed District Manager of that plant. The announcement also stated that Norman H. Shipley has been appointed District Manager of the ACF Madison, Ill. plant. He has been with the company for 34 years. Mr. Shipley entered the service of ACF at the St. Louis, Mo., plant on June 15, 1912. He belongs to and is active in the Car Department Association of St. Louis.

Snell Executive Honored

It is announced that Cyril S. Kimball, vice-president of Foster D. Snell, Inc., 305 Washington St., Brooklyn 1, was elected on July 12th by the Council in London as the American vice-president of the Society of the Chemical Industry.



Electric Tractor Hauling Six-Ton Load of Foodstuffs.

ANOTHER

HORTON ELEVATED TANK

for a Southern City

Laurel, Mississippi, recently completed improvements in its water distribution system . . . including the 500,000-gal. Horton radial-cone tank shown below



Above: Map of water distribution system at Laurel, Miss., showing location of pumping station, wells and storage facilities.

One of the principal reasons for installing an elevated tank in the water system at Laurel was to maintain pressure in the event of temporary power failure. Also, the pressure in the system, which formerly varied from 25 to 60 lbs. per sq. in., is more uniform since the installation of the tank.

Other recent improvements in the Laurel water works system include a 600-gpm well and 1,100 ft. of 16-in. main from the tank to 10th Avenue (see map above) which ties into two 12-in., two 8-in. and two 6-in. lines.

The only storage facilities, aside from the new 500,000-gal. elevated tank, consist of a 100,000-gal. circular reservoir and a 500,000-gal. rectangular reservoir located at the pumping plant.



This Horton radial-cone elevated tank, one of hundreds of Horton tanks used by cities and industrial plants, is 60 ft. to bottom and has a range in head of 25 ft.

CHICAGO BRIDGE & IRON COMPANY

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Birmingham 11530 North Fifth Street
Houston 15614 Clinton Drive
Tulsa 31611 Hunt Building
New York 63313-165 Broadway Building
Cleveland 162216 Guildhall Building

Chicago 42106 McCormick Building
San Francisco 111240-22 Battery St. Building
Philadelphia 31619-1700 Walnut St. Building
Los Angeles 141417 Wm. Fox Building
Washington 4703 Atlantic Building
Detroit 261510 Lafayette Building

Plants in BIRMINGHAM, CHICAGO and GREENVILLE, PENNSYLVANIA

News from Industry

New Barrett Lift Truck

A new all-electric lift-truck called PowerOx is announced by Barrett-Cravens Co., Chicago 23, Ill. The unit is described as the latest addition to the Barrett family of labor-saving devices, capable of being operated by any operator, even women; capable of handling loads of 4,000 and 6,000 pounds; motor and jackshaft supported on precision ballbearings; automatic automotive type braking system; four-inch vertical lift with aircraft type hydraulic gear pump connected to high torque electric motor.



Barrett "Power-Ox"

Navy Man Rejoins Reynolds

Carl W. Huflage has returned to the Reynolds Metals Co. Foil Division, as manager of Converter Sales, after more than three years' service in the U. S. Navy from which he retired to inactive status recently with the rank of Lieutenant Commander. While in the Navy he was in charge of a program of preservation, packaging and packing of aeronautical supplies, spare parts and equipment. Mr. Huflage joined Reynolds in 1926 and served in various capacities in sales offices in Louisville, Ky., New York, Chicago, Cincinnati and Richmond, Va., until he entered the Navy in 1942. At the time he left Reynolds on leave of absence he was manager of the Southern Sales Division. In his new post with headquarters in Richmond, Mr. Huflage will be responsible for sales of Reynolds foil materials to converters for use in processing and fabrication of their products. He will also act as liaison between Reynolds field offices and the main office in Richmond.

Combustion Control Saves Fuel

Automatic combustion control as represented by the Hagan control system, developed by Hagan Corp., Pittsburgh, is said by the firm's European representatives to be taking greater hold in the old continent as a means of conserving scarce fuel. J. E. O'Brien, managing director of James Gordon & Co., Ltd., European representatives of Hagan Corp., imparted this information during a period spent recently in Pittsburgh, and further stated that he believed even greater possibilities were in sight for expansion in marine and related fields.

V-Belts Approved

A new application of V-belts is on a fishing vessel where they drive the propeller shaft from dual marine Diesel engines, it is reported by The B. F. Goodrich Co., makers of the belts. Owners of the vessel, which operates off the west coast, have reported, after a recent voyage to Mexico, that the V-belts have proved more efficient and vibration free than the chain drives they replaced. They are said to absorb propeller shocks and not strip the shaft if the propeller becomes fouled. It is claimed that previously used chain drive was so noisy that it alarmed fish, possessed much excessive weight, and required expensive repairs. Shepherd Diesel Marine powered the vessel and installed the V-drive.

Concrete Protector Offered

Concrete floor dusting is stopped instantly and longer life for your floor is claimed by Stonhard Co., 403 N. Broad St., Philadelphia, Pa., through the use of Stonhard Stontop. Easily applied to new or old concrete floors, the product penetrates and by chemical reaction with the cement, hardens and fortifies the surface against the effects of acid, grease, oil, and abrasion to keep floors smooth, safe, and sanitary, the company states.

Intercom Units Introduced

New dust and moisture-proof, metal-housed, industrial type intercom staff stations for remote and privacy operation, have recently been introduced by Executone, Inc., 415 Lexington Ave., New York, manufacturers of electronic intercommunication and sound systems.

Steel-cased, these especially constructed, compact stations are designed to solve communication problems in refrigerated rooms, laundries, shipping and receiving platforms, foundries, and all other locations where they will be exposed to rough usage. Equipped with a call-origination button, the remote type Model C-22 unit permits the user to receive a call and reply from a distance of twenty feet without approaching the station. The privacy type Model C-26 has a toggle switch for call origination, assuring freedom from eavesdropping when in idle position.

Designed for rigid mounting on wall or partition, these units are 6 inches wide, 6 inches high and 3 inches deep. They can be wired directly to any standard Executone Central Control Master station, manufactured by Executone, Inc., who maintain installation and service facilities in principal cities.

Group Compressor System

Production of a new line of industrial "departmental" compressors was announced recently by Paul H. Davey, president, Davey Compressor Co., Kent, Ohio. These new units are available in 60-105-160-210-315 c.f.m. sizes. They are designed for installation in individual plant departments and are offered as modern, economical replacements for large central compressor systems.

In connection with this announcement of the new line, Mr. Davey outlined a completely new plan for industrial air compressor installations—The Departmental System. This is a progressive departure from the conventional "central" system where a large compressor pipes air to various departments. Under the departmental system, for example, if six departments require compressed air, six separate compressors of proper capacities are installed. Each operates independently but several units are connected together.

Lightweight Hydraulic System

Electrol Incorporated, of Kingston, N. Y., is now in production on a new hydraulic device known as the Powerpak, it has been announced by Benjamin N. Ashton, president. This Powerpak combines in one compact unit a complete hydraulic system—hand pump, two separate 4-way selector valves, relief valve and reservoir. In units now in production, power is supplied by a hand pump. However, ports for connecting pressure and suction lines of a power-driven pump are provided when such an installation is desired. When a power-driven pump is employed, the hand pump can be depended upon for auxiliary use.

The Powerpak stands 4½ inches high and its base measures 3½ by 4 inches.

Firm Leadership Changes

Leadership in the United States Steel Supply Co., a U. S. Steel subsidiary, changed recently when Leslie B. Worthington, formerly sales vice president, was elected president and Ernest E. Aldous retired from the presidency in accordance with the corporation's retirement policy. The company, which maintains general headquarters in Chicago, operates warehouses in Baltimore, Boston, Cleveland, Newark, Pittsburgh, St. Louis and St. Paul as well as in Chicago. Mr. Aldous retires after 45 years' service with U. S. Steel subsidiaries. Mr. Worthington began his career with U. S. Steel subsidiaries September 8, 1923, as a sales apprentice at the South Chicago works of Carnegie-Illinois Steel Corporation, following graduation from the University of Illinois.

Nalle on Pennsalt Board

Richard T. Nalle of Philadelphia, Executive vice president of the Midvale Co., recently was elected to the board of directors of the Pennsylvania Salt Manufacturing Co. Mr. Nalle, who is 57, succeeds John S. Jenks, who died last March 13. A graduate of the University of Pennsylvania with a degree of Electrical Engineer, Mr. Nalle is vice president and a member of the Board of the Franklin Institute of Philadelphia, a director of the Baldwin Locomotive Works, the Provident Trust Company, and a director of the executive committee of Henry Disston and Sons, Inc.

Army Man Reconverts

J. P. Johnson, Jr., a member of the Chicago technical department of the American Lumber and Treating Co., 302 S. Michigan Ave., Chicago, prior to being called to active duty by the Army in 1941, has been assigned to the Company's Washington office after nearly five years of military service. C. D. Bird, Washington manager, has announced. A chemistry graduate of Virginia Military Institute where he received his commission,

New Freezer Pump

The Marco Co., Inc., of Wilmington, Del., announces a new pump for use with continuous freezer. It is claimed that this pump will maintain long volumetric efficiency against wear caused by sugar, chocolate and other solids in ice cream mix. It is further stated that uniform delivery can be maintained to insure freezer production efficiency and that the pump is designed to meet the sanitary health law requirements.

Motorized Lift Truck

A motorized hand truck counterpart of fork lift and high-lift platform trucks has been revealed by Elmer F. Twyman, general manager, Automatic Transportation Co., 149 West 87th St., Chicago 20, in the Transtacker, a new battery-powered high-lift tiering unit which is said to do the work of a fork lift or high-lift platform truck where weight, size, speed or cost make the larger units impractical. Weight and cost are approximately half those of standard high-lift platform and fork lift trucks of similar load capacities. Designed in four models for various types of pallets and skid platforms, the Transtacker handles vertical tiering of unit loads in production and storage facilities where floor or elevator capacities are limited, where extreme maneuverability is essential, and/or where volume of material or other conditions do not warrant investment required for standard platform or fork trucks. Load capacities range from 2,500 to 4,000 pounds and platform and forks raise to heights of 68 and 64 inches, respectively.



Platform Model Transtacker

SERVICE REPRESENTATIVE in the Business Office. She's there to help whenever you have questions about service, equipment or bills. An important part of her job is to see that all orders are filled in their proper turn.



Speaking of Citations

Next time you call or visit a telephone office, see if you don't think the young women working there deserve a citation for competence and courtesy. They are doing a fine job.

Demand for telephone service is at an all-time high. That means more calls to put through—more telephones to install—more bills to prepare and send out—more

people to talk with in the business office . . . and more equipment needed to do the job the way we would like to do it.

We're building and adding just as fast as we can get materials and make equipment. In the meanwhile, telephone people who serve you will keep right on doing their best.

And doing it with a friendly smile.



BELL TELEPHONE SYSTEM

Southern Construction by States

	June, 1946	Contracts to be Awarded	Contracts Awarded First Six Months 1946	Contracts Awarded First Six Months 1945
Alabama	\$3,825,000	\$29,049,000	\$25,578,000	\$90,258,000
Arkansas	791,000	1,099,000	15,906,000	4,501,000
Dist. of Col.	2,448,000	20,548,000	9,588,000	21,309,000
Florida	13,129,000	18,730,000	121,906,000	34,871,000
Georgia	5,487,000	13,841,000	70,546,000	18,257,000
Kentucky	2,685,000	3,017,000	37,230,000	9,848,000
Louisiana	5,720,000	12,107,000	43,573,000	28,392,000
Maryland	17,631,000	15,764,000	83,123,000	29,230,000
Mississippi	4,763,000	5,522,000	46,634,000	17,556,000
Missouri	729,000	10,766,000	24,432,000	9,878,000
N. Carolina	6,054,000	8,754,000	43,863,000	17,678,000
Oklahoma	903,000	4,055,000	39,400,000	16,738,000
S. Carolina	9,487,000	13,434,000	36,536,000	6,342,000
Tennessee	1,603,000	12,424,000	34,635,000	24,563,000
Texas	61,801,000	154,422,000	247,822,000	171,069,000
Virginia	3,128,000	3,701,000	19,673,000	31,305,000
W. Virginia	3,666,000	2,795,000	10,248,000	7,931,000
TOTAL	\$143,844,000	\$330,624,000	\$907,848,000	\$539,626,000

Six Months' Southern Awards Amounts to \$907,848,000

(Continued from page 46)

private building figure, in the order of their valuation are: Commercial structures, \$43,423,000; assembly buildings, \$16,996,000, and office type buildings, \$12,087,000.

Road and bridge construction is the second construction category involved in the current six-month increase. The total valuation for the sixteen southern states and the District of Columbia is \$175,934,000. This is more than three and one-half times the \$48,294,000 for the comparable months of 1945.

Engineering construction is the third field where a heavy rise was recorded in the valuation of the current six months, as compared with the same period of last year. The \$165,442,000 for the elapsed months of 1946 is slightly more than twice the \$82,650,000 for the first half of 1945.

The largest dollars increase involved in the engineering valuation rise was in the dams, drainage, earthwork and airport category. This year the aggregate for three types of work is \$120,006,000, as compared with the \$59,617,000 for the similar months of last year.

Governmental electric construction, which is included in the engineering total, shows the greatest percentage increase. The current six-month total is \$18,345,000, or more than five times the \$3,590,000 at the half-year mark of last year.

The six-month total for sewers and water works contracts is \$27,091,000. This represents practically a thirty-nine per cent rise over the \$19,443,000 for the six-month period of 1945.

Industrial construction, while the second largest contributor to the current six-month total is below the level for the first six months of 1945. The current figure is \$204,513,000; that for the half-period of last year, \$247,595,000.

Plant construction is proceeding in some instances; in others, the material

shortage is slowing work down to a stop. The general attitude toward industrial construction is that if it will accelerate the veterans' housing program or the production of critical materials, approval will be granted. There is a \$15,000 exemption above which approval must be obtained.

Public building in the South is slightly below what it was last year at this time. The actual decrease in valuation is about one and eight-tenths per cent. Total of public building for the elapsed six months is \$131,435,000; for the similar period of 1945, \$133,898,000.

Birmingham Surges Ahead

(Continued from page 44)

established in the plant.

The firms with space under lease in the plant, and their products are: Skycraft, Inc., sellers and servicers of aircraft and operators of a flying school; The Alamit Corporation, manufacturers of metal consumer goods; Birmingham Manufacturing Co., fabricators of special machinery; Dixie Consolidated Corporation, manufacturers of a flame cultivator; Austin-Young Co., producers of chemical cleaners; Vulcan Metal Products Co., manufacturers of aluminum screens and frames; a woodworking concern, producers of furniture stock; Southeast-Joslyn, handlers of electrical line material; Freezerator Co., assemblers of home freezers; Kleenzit Co., cleaners of furniture and upholstery; Southern Furniture Co., general furniture repairers; Elliott System, prefabricators of concrete houses; Aircraft

Sales & Service, Inc., sellers, renters and repairers of aircraft; Aero Sales Co., sellers of aircraft parts and accessories, and Mill and Textile Supply Co., makers of mill and textile supplies.

Vast numbers of Birmingham industries that developed, and others that expanded during the war, have added new equipment and made improvements while reconverting to peacetime production.

Fontaine Truck Equipment Co., which came to Birmingham in 1940 and made practically all of the fifth wheel equipment for the Army, is now producing trailer-busses for the government of the Netherlands. The fifth wheel will continue in production, and bus bodies for domestic use will be produced.

Southern States Iron Roofing Co., wartime producers of steel products, will make steel buildings as well as roofing products.

The list of producers retooling for peacetime production is endless, but a great deal of the slack has been taken up by new products being manufactured under contract by existing facilities. John Parks Newsome, Inc., has developed a line of wrought iron furniture being made under the name of Lu Jo Craft, and produced by Birmingham Ornamental Iron Works. Thomas E. Prouty has contracted with Howard Cuthrell Manufacturing Co. for production of a toy merry-go-round with horses that go up and down and music to match that of a real carnival.

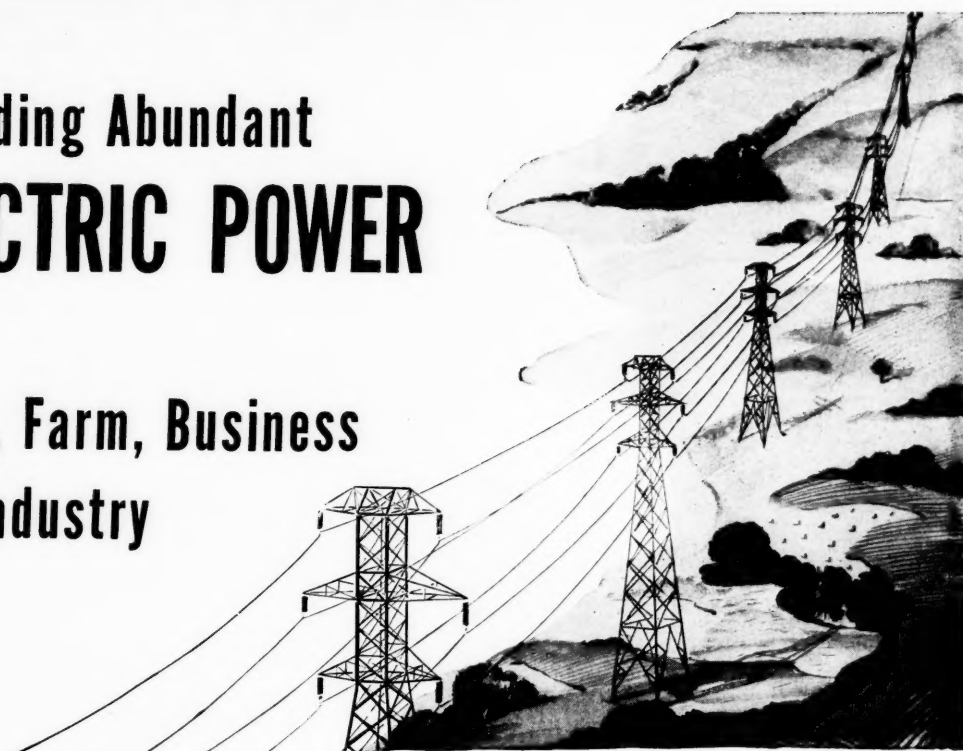
Other toys being produced in the area are the all metal, ball-bearing scooters of Wallace Neon Display Co., and the blocks and wagons of the Johnson-Crowder Manufacturing Company.

While no magazine article could list all of the companies and their history of reconversion, the ones given will show how the trend is moving from basic industry to production of finished goods.

Of course, the story of manufacturers swinging from a wartime basis to one of peaceful production is always the most important in an industrial city, but in Birmingham this is only a small part of the picture.

A \$10,000,000 medical center is
(Continued on page 56)

Providing Abundant **ELECTRIC POWER** for Home, Farm, Business and Industry



TEXAS POWER & LIGHT COMPANY, pioneer of transmission line electric service in Texas, has been a vital factor in the industrial and agricultural progress of Texas, its far-flung transmission and distribution system supplying dependable, low-cost electric service to a vast 52-county area in North, East and Central Texas.

FROM THESE TRANSMISSION LINES comes the energy which powers numerous industries grown up during the past 34 years. From these lines during the war came the energy which supplied vast amounts of power on demand, when and where it was needed by the war industries and military installations which sprang up almost overnight... and this without any curtailment of service to any of its customers.

Texas Power & Light Company's facilities are ample to meet the expanding requirements of this, the fastest-growing industrial area in America. A native Texas institution, this Company joins all of Texas in inviting the immediate attention of American industrialists to the Lone Star State. Specific data will be supplied in response to inquiries. An organization of trained and experienced personnel, fully informed regarding local conditions throughout the important 52-county area the Company serves, is at your service. Address communications to Texas Power & Light Company, Executive Department, 728 Interurban Building, Dallas, Texas.

THE POWER LINES OF THIS COMPANY bring metropolitan type electric service to the crossroads. Pioneer of rural electrification in Texas, Texas Power & Light Company's service to rural and farm homes dates back as early as 1915. This Company today serves more than 44,000 rural and farm homes, and in addition supplies electric power at low wholesale rates to 20 REA Cooperatives which, in turn, serve a large additional number of farms in North, Central and East Texas.

IT IS THE CONTINUING POLICY of this Company always to plan ahead for future requirements, thus enabling it at all times to provide amply for the power needs of the area it serves. The number of customers served by the Company has increased since its organization in 1912 until, today, it serves more than 197,000 customers in 445 cities, towns and communities.

TEXAS POWER & LIGHT COMPANY

JOHN W. CARPENTER, *President and General Manager*



A phone call may save you the difference

HOME owners! Fill in the sign above with today's value of your own home. Then check the amount of your present insurance against that figure.

This is a serious appeal from the fire insurance business to act in your own interest—to protect the greatly increased value of your property.

The value of your home might well be from 30% to 50% more today than in 1939. Yesterday's insurance can not cover today's higher property values.

The increase in value of your furniture, rugs, clothing, jewelry may represent additional thou-

sands in assets you stand to lose if fire destroys your home and belongings.

Fire losses every day are awakening home owners to these tremendous increases in property values—too late! We who live and work in the fire insurance business see this daily evidence piling up—evidence of the tragic and needless losses home owners are suffering through inadequate insurance protection.

In this critical nation-wide situation—we urge you to get in touch with your local UNITED STATES FIRE Agent. A telephone call to him today may save you thousands.



SOUTHERN DEPARTMENT: HINES BROTHERS, Managers, SPRING ST., ATLANTA, GEORGIA
CAROLINAS DEPARTMENT: J. F. GLASS, Manager, DURHAM, NORTH CAROLINA

Birmingham Surges Ahead

(Continued from page 54)

on the books for development around the University of Alabama's new College of Medicine; almost \$8,000,000 will be spent in enlarging and modernizing the public school system; the entire downtown business district is undergoing a face-lifting that includes construction of several new buildings, and industrial buildings are going up so fast that it is impossible to keep up with them.

Recently the Birmingham Chamber of Commerce tried to blueprint the future growth of the city from existing plans, but the booklet they issued was out of date before it could come off the press. In the first edition, building totaled \$302,528,240, exclusive of land purchases and costs of buildings that had not been determined. A second edition listed over three and a-half millions of dollars in construction and improvements, but even this was outdated before it came from the presses of the printer.

With its mines and mills, its hydro-electric power and its excellent transportation facilities, Birmingham could not help being a producer of heavy basic items, but skills learned by its manufacturers and laborers are turning it into a city of finished product production. From this change, many believe, will come a more balanced economy that will level off the up and down periods of wealth and depression that plague every area depending on one basic heavy industry for the bulk of its payroll.

Ramie

(Continued from page 42)

research included agronomy studies, harvesting, engineering problems related to large scale decortication, degumming and textile tests in order to determine the potential markets for ramie fibre.

"Our Ramie venture, at present," says Mr. Dempsey, "should be regarded as a large scale experiment which eventually may become a commercial enterprise."

In other words, by scientific study of methods of wholesale organization and mechanization in producing and handling ramie, the Ever-

(Continued on page 57)

Ramie

(Continued from page 56)

glade growers propose to find out if they can compete with the age-old hand industry of the Orient.

Ramie is a perennial subtropical plant. For this reason, its area of production is limited. It never can compete with wool and cotton which can be produced over a wider latitude. The plant belongs to the nettle family though it has no nettles. It grows as a single stalk hardly larger than one's finger but branches about

two thirds the way to the top. In two months of growth it may reach six to eight feet in height. In fact, under good conditions it can grow one to three inches per day. The plant develops a dense mass of roots. When one crop is cut another immediately springs up in its place. The repeated growths and harvestings may occur successively over a period of 8 to 20 years, (no one has tested it yet) until the plant becomes almost completely root bound. Like flax and hemp the fiber in ramie is contained in the stalk

and not, like cotton, in the bloom. The inside of the stalk is filled with a soft white pith, then comes a layer of weedy "wood" and then the inner bark which contains the fiber and finally the thin closely adhering outer bark. In China, soon after the plant is cut, bark is peeled off by hand in one strip called a ribbon. Then the "ribbon" is placed on a board and the brownish outer skin and adhering vegetable tissues are scraped by hand, using a piece of bamboo or a knife. The fiber thus

(Continued on page 58)

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The Southern Hotel
BALTIMORE 2



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Phone LD-159

Ramie

(Continued from page 57)

left after drying is called "China Grass." It is yellowish because of the presence of the obstinately adhering gum only a part of which is lost in the scraping. It is estimated that 100,000 tons of ramie were thus produced annually in China before the war.

Handstripping the fiber is too slow for the Western World. Labor is too expensive. In 1869 a prize of \$25,000 was offered in India for a machine to strip the fiber. All attempts failed in England, France and Russia. Tests in 1892 at New Orleans failed. At last, among others, Krupps in Germany made a pretty good decorticator, as a stripping machine is called. This was imported into the Philippines in 1930 by the Japs who used it on Manila hemp (abaca) and ramie at Davao. In the first eight months of 1939 the Philippines produced almost 2,500,000 pounds of ramie fiber of which the United States took one-quarter and Britain three-fourths.

Today decorticating machines

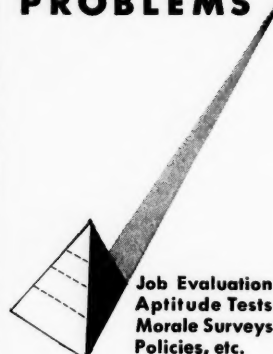
both large and small are being developed. W. B. Simons, tropical fiber expert of 36 years experience has developed a small portable decorticating machine which he believes will be efficient in the American tropics and India. Charles R. Short of the Short Laboratories, Claremont, Fla. has also developed one, and there are others.

Decorticating does not mean that ramie is ready for the textile mills. For the textile industry, ramie must be degummed. There is no secret to this. It is not mysterious, although degumming is often shrouded in mystery. It is usually boiled in a mild alkali, a sodium compound, but whatever the solution, the end is always the same. The fiber is washed clean and oiled and ends up as a soft lustrous pure white fiber which has lost 25 per cent in degumming. It is now ready for the mills.

Ramie is a fabulous product, not only because of its intrinsic merit but because of the fabulous stories, promoters and over zealous enthusiasts have told, written and placed

(Continued on page 60)

PERSONNEL PROBLEMS ?



Write for circular on

EXECUTIVE LEADERSHIP CLINIC

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Ever since April in 1865, First and Merchants has cooperated actively with Southern industry. Today hundreds of Southern manufacturers are among its customers, and through its extensive connections with other banks serves many other manufacturers. First and Merchants is a manufacturer's bank because it knows and understands Southern industrial finance through long first hand experience.

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John M. Miller, Jr., Chairman of the Board

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Condensed Statement of Condition as of June 30, 1946

Including Domestic and Foreign Branches But Not Including The Affiliated City Bank Farmers Trust Company

(In Dollars Only—Cents Omitted)

ASSETS

Cash and Due from Banks and Bankers.....	\$1,176,800,124
United States Government Obligations (Direct or Fully Guaranteed).....	2,561,321,256
Obligations of Other Federal Agencies.....	39,175,629
State and Municipal Securities.....	178,926,140
Other Securities.....	82,764,053
Loans, Discounts, and Bankers' Acceptances...	1,074,374,109
Real Estate Loans and Securities.....	3,561,794
Customers' Liability for Acceptances.....	13,763,772
Stock in Federal Reserve Bank.....	6,600,000
Ownership of International Banking Corporation.....	7,000,000
Bank Premises.....	29,647,062
Items in Transit with Branches.....	7,296,487
Other Assets.....	3,246,015
Total.....	\$5,184,476,441

LIABILITIES

Deposits.....	\$4,872,600,625
(Includes United States War Loan Deposit \$562,987,699)	
Liability on Acceptances and Bills.....	\$20,431,822
Less: Own Acceptances in Portfolio.....	3,723,376
	16,708,446
Reserves for:	
Unearned Discount and Other Unearned Income.....	2,867,452
Interest, Taxes, Other Accrued Expenses, etc.	30,937,351
Dividend.....	4,650,000
Capital.....	\$77,500,000
Surplus.....	142,500,000
Undivided Profits.....	256,712,567
Total.....	\$5,184,476,441

Figures of Foreign Branches are included as of June 25, 1946, except those of the Tokyo and Dairen Branches which are prior to the outbreak of the War, but less reserves.

\$810,620,791 of United States Government Obligations and \$16,452,887 of other assets are deposited to secure \$724,572,192 of Public and Trust Deposits and for other purposes required or permitted by law.

(Member Federal Deposit Insurance Corporation)

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The scroll represents his philosophy. Ours, too. We prove it by this statement: In more than thirty years of constantly progressing construction business, the Virginia Engineering Company has executed many millions of dollars of construction and NOT ONCE in its history has it ever defaulted on a contract. Even during harassing wartime pressure, work was completed on schedule. No contractor in America stands higher with its many and varied sources of supply. We are proud to say—"We have always kept our word" . . . and even prouder to state—"No matter what the amount, bond can be furnished!"



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May we tell you the entire story of Virginia Engineering Company? Write today.

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 BUILDING • HIGHWAY & HEAVY CONSTRUCTION
 MECHANICAL • ELECTRICAL • UTILITIES
Contractors to American Industry
 WE BUILD TO YOUR DESIGN

Ramie

(Continued from page 58)

in advertisements about it. Many have wrongly assumed a great industry would be launched swiftly, unaware of the many problems involved in its production.

Ramie must not wait too long after cutting before the fiber is stripped. The Chinese place the ribbons in water or strip it immediately lest the ribbons become too dry. There is a right time and wrong time to cut ramie. If cut too soon the plants lack the requisite amount of fiber. Cutting usually begins somewhere after 60 days—say 70 to 75 days—when the lower part of the green stem begins to turn brown. By three weeks later the stalks have begun to get woody and harder to decorticate. Tests of a Florida ramie crop in 1943 showed that ten-day old green plants had less than one per cent of degummed fiber, fifty-day old plants had 2.69 per cent of fiber and 60-day plants had 3.46 per cent of fiber. Three and possibly four crops of ramie can be produced in the Everglades annually. A good average yield for the year will be 30 tons of green plants per acre for three cuttings. But of that 30 tons of green plants, leaves and stem, only about one ton will consist of dry fiber. Hence, ramie must be processed near the spot where it is cut. If the processing plant is located more than two or three miles from the field, a lot of expensive useless hauling must be done. Advocates of large scale operations believe in cutting with harvesting machines and hauling in large wagons to a centrally located plant where a big decorticator will handle 25 acres on one shift per day. They believe this will be a great money saving over taking the small portable decorticators right into the fields. On the other hand there are those who believe small farmers can handle ramie, using small decorticators.

Ramie is a heavy nitrogen feeder; it thrives wonderfully in the Florida Everglades where the soil is 90 per cent organic and contains about 3½ per cent nitrogen. It absorbs a great deal of water but the roots can be killed by standing water. Some experiments indicate they can stand moving water for about four days. Experts grow ramie in the Ever-

glades by water control, the water coming to the plant from below. The level of the water in the soil is maintained by pumping plants which can pump water into the irrigation ditches when the level is low, or pump it out of the ditches into the canals when water level threatens to become too high.

S. P. A. Opposed

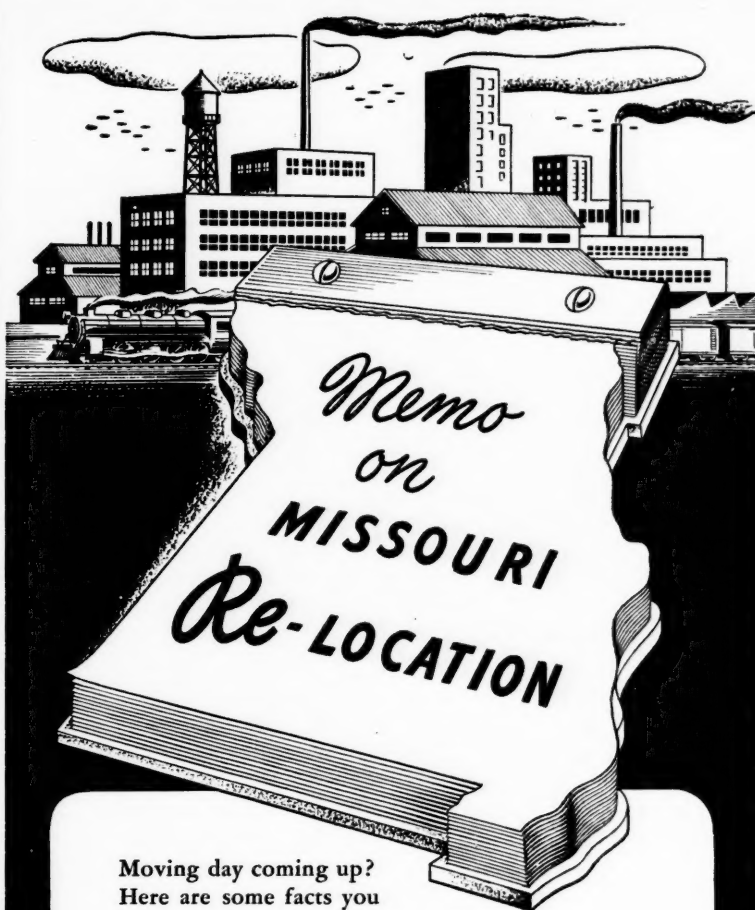
(Continued from page 33)

ing three dams with transmission lines, two of which are the Denison Dam and the Norfolk Dam. These two dams are more than three hundred miles apart, and the most conservative estimate I have been able to obtain from experts as to the loss of electrical energy when transmitted such a distance is ten per cent. In all likelihood the loss would be greater.

As if this was not bad enough, the actual plan is to connect the dams by a route which will involve the use of more than 500 miles of power lines. I am not an electrical engineer, but I do know that the percentage of power loss in transmissions such as these is greater with each additional mile.

Do you think that this is an isolated instance? Such, unfortunately, is far from the case. The SPA blandly ignores the fact that there is one billion dollars' worth of present power facilities in the area it covers, and that these facilities blanket the territory. To the 15,000 miles of lines already there, the SPA plans to add 15,000 more miles of lines. So far as I have been able to find out, these new 15,000 miles will not bring electric power to *one single additional consumer!*

Therefore, I cannot condone any further expenditures for the Southwestern Power Administration. The Administration's own experts, while testifying before a committee, produced a map showing proposed construction, and it was remarkable how this paralleled already-existing facilities. We all know how the expenses for federal projects seem to multiply once they are given free play. There may be some justification for this when the end in view is a good one, but this can hardly be said for the Southwestern Power Administration. I am, therefore, opposed to all moves designed to expand this agency.



Moving day coming up?

Here are some facts you leaders of industry will want to add to that memorandum. Whether yours is a parent plant or branch, Missouri offers these advantages:

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- ✓ Over 950 new corporations last year
- ✓ Adequate water supply
- ✓ Abundance of skilled native labor
- ✓ Excellent transportation facilities
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- ✓ Wealth of natural resources
- ✓ Low cost power
- ✓ 350 communities eager to cooperate

Specialized, confidential service to industrialists. Write direct: Missouri State Department of Resources and Development, Department 703, Jefferson City, Missouri.

THE STATE OF MISSOURI
IN THE HEART OF AMERICA

Climate Control

(Continued from page 40)

industry. An example is citrus fruits, which not so long ago were highly seasonal to the market. Now they are stored at low temperatures and high humidities to maintain them for sale throughout most of the year. The southern fishing industry is dependent on refrigeration to keep one of the world's most perishable foods fresh.

Past growth due to refrigeration points the way to other large scale food industries in which the storage, and processing will largely be dependent on quick freezing, refrigeration, or air conditioning. Among industries for possible future expansion, dairy production stands high. With extended rural electrification, supplementing the naturally long growing and pasturage season, the South may well produce much more in dairy products than it needs. Mechanical farm refrigeration opens that invitation.

In the textile industry, uniformity of relative humidity is all important. High speed machinery means high power input producing high temper-

atures. High temperatures cause low humidities. Low humidities cause static and excessive losses of production, due to decreased breaking strength of yarn, uneven sizes and weights of yarn caused by varying moisture content, and seconds due to these faults. Close control of relative humidity at proper levels has been recognized as a "must" for forty years, for quality, for production and for comfort through cooling by evaporation.

In printing plants, particularly on color work, uniformly controlled relative humidity is essential to prevent imperfect register, to prolong life of ink rolls and prevent static.

In drafting rooms and photo-engraving shops, air conditioning has raised production by controlling humidity which, at extremes, will cause paper to shrink or expand. One drafting room reported efficiency up 51 per cent after installing air conditioning.

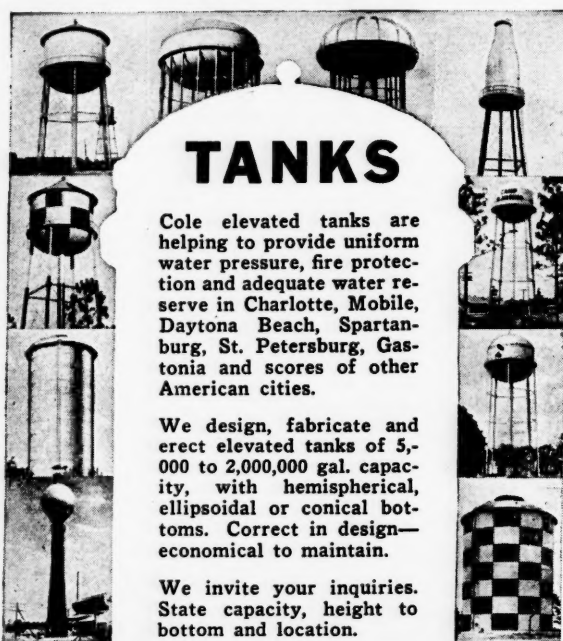
Bouillon cube factories and candy plants which formerly shut down in summer months now operate the year around with air conditioning. The quick cooling of bread prevents

mold and preserves the freshness. And in the manufacture of many pharmaceuticals, clean air, exact temperatures and humidities are looked upon as prime necessities. For example, without temperature control, we would have no penicillin.

Modern industry operates at high speed. Speed generates heat. Heat breaks down machinery, makes working conditions difficult, slows efficiency of men and equipment. The answer to greater heat was to bring refrigeration to the machine. Much heat generating machinery, such as drills and rapidly moving parts not adequately cooled by normal air circulation, are now protected by modern refrigerating methods.

Costly slowdowns and stoppages once necessary for repairs due to the excessive heat are now averted. The single example of welding tips illustrates the point. Formerly the tips had to be discarded or cleaned after thirty or forty welds. Now they are cooled mechanically and the workman can complete as many as 800 welding operations without changing or cleaning the tips, and consequently without the costly

(Continued on page 64)




TANKS

Cole elevated tanks are helping to provide uniform water pressure, fire protection and adequate water reserve in Charlotte, Mobile, Daytona Beach, Spartanburg, St. Petersburg, Gastonia and scores of other American cities.

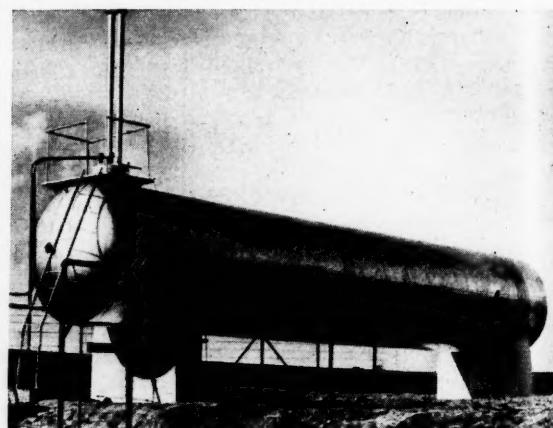
We design, fabricate and erect elevated tanks of 5,000 to 2,000,000 gal. capacity, with hemispherical, ellipsoidal or conical bottoms. Correct in design—economical to maintain.

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RIGHT UNDER YOUR NOSE!

Look at South Carolina—discover an industrial frontier! Note how cheaply and quickly processed goods can be shipped by air, rail, highway or water to the great markets nearby. Now look inside: South Carolina is still half-forest, an immense resource for the rayon, chemical, paper and furniture industries. A fertile agricultural state, with moderate tax and power rates; native-born, dependable labor. *Yet it has not one crowded industrial city!* Specific questions? They'll be answered promptly, fully, accurately by State Research, Planning & Development Board, Dept. E, Columbia, South Carolina.

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This applies to field as well as shop built equipment

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TANKS

South Carolina

WHERE RESOURCES AND MARKETS MEET

Climate Control

(Continued from page 62)

slowdowns. Heat from many machine operations is transmitted into the air, and in the hot months this make efficient work more difficult. Air conditioning here provides the answer. No modern plant need operate at temperatures that are exhausting and costly in terms of human efficiency.

It is not to be expected that industrial air conditioning will suddenly make its appearance in all our factories, South and North alike, by overnight magic. The transition will come more slowly, but it will come surely, nevertheless. New, modern factories will incorporate the latest air conditioning and refrigerating methods. Very likely central air conditioning systems will be features in most new office buildings, hotels and super stores. That will be largely for comfort. In industry, the question is not only comfort, but efficiency with machines and materials.

From the viewpoint of Southern industrialization, the basic facts are clear. Unquestionably there was some reason why industry settled more heavily in the cooler

zones, in Europe, in Asia and in the Americas. The nearness of raw materials is not the answer, because raw materials collectively are fairly evenly distributed over and in the earth's surface. Control of heat was the reason. Now comes another step—control of cold. Why not, in future decades, an Akron in Mississippi, or a Detroit in Alabama or Tennessee? The air-conditioning experts will tell you that such things may be coming.

Charleston Industrial Board

(Continued from page 38)

It was an important and outstanding meeting in many ways. Mayor E. Edward Wehman, Congressman L. Mendal Rivers, State Senator O. T. Wallace, and other dignitaries were there. Each of the new manufacturers—who had combined to give Charleston new plants which would, before the end of 1946, give employment to 1,500 workers—made short talks and many of them told of plans already made to expand their present new industries when materials and machinery were no longer critical.

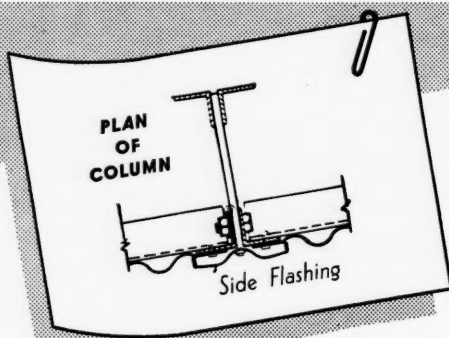
John M. Rivers, radio station ex-

ecutive and general chairman of the Industrial Association's building committee, took this occasion to announce that the committee's plan to raise \$500,000 through the sale of stock for the purpose of financing sites and factories for new industries had budded, and that a campaign would get underway within a few days. The bud, however, blossomed then and there and within an hour \$194,000 worth of stock had been underwritten. The goal was reached after a routine canvas.

Two months later an organizational meeting was called and Hall T. McGee, general manager of the two daily papers, was named president. Within a few days a state charter was granted.

It was also at this meeting that Chairman Barkley, of the Development Board, announced that the war assets corporation had approved the sale of certain buildings at Stark General hospital to the county, and that these structures, situated on a 17-acre tract and admirably adapted to the requirements of small manufacturers, would be taken over by the new Industrial Association

(Continued on page 66)



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Famous for Quality CONSTRUCTION

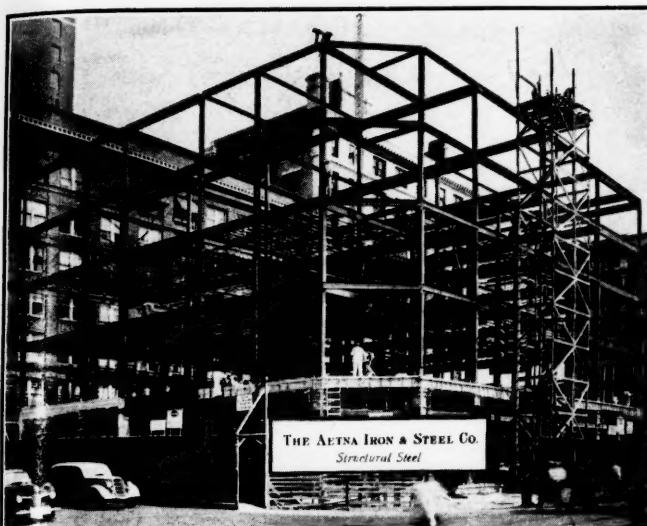
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Chattanooga, Tennessee

*Structural Steel for all Industrial Structures,
Buildings and Bridges*

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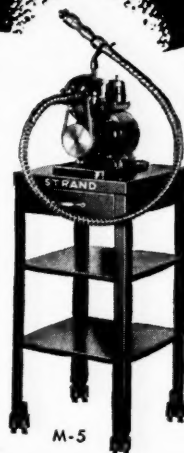
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... in your job of grinding, polishing, buffing, sanding, drilling, reaming, screw-driving or nut-setting, you want a Strand Flexible Shaft machine, because a Strand will do it faster, better, and stand up to it longer.

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Charleston Industrial Board

(Continued from page 64)

when legal matters were attended.

In October, 1945, when the hospital was abandoned, Congress was petitioned at the behest of the board to declare the entire project surplus property and available for a veterans hospital. More or less drawn-out efforts by the American Legion to accomplish this were futile, however, so the board then began negotiations which led to the acquisition by the county of certain buildings in the area, whereupon the Industrial Association consummated its first financial enterprise. All the buildings thus purchased by the association have been leased, or sold outright, to factories now turning out new products for the local consumer and interstate trade.

Of greater significance, however, was the announcement that the Army had released the terminals at the port of embarkation, meaning that the huge warehouses, large tracts for additional buildings, and extensive housing facilities were available for long-term leases to in-

dustries. The Government had spent 15 million dollars at the port during the war.

Two of the six warehouses had been contracted for by the already expansive West Virginia Pulp and Paper mill, as a part of a \$5,000,000 post-war expansion program. The remaining four, each comprised of 12 units 100 x 160 feet, provide, however, nearly three-quarters of a million square feet or floor space for new manufacturers. Single units of 16,000 square feet are still available, and removable hollow tile firewalls make it possible to acquire as much as 192,000 square feet under a single roof.

Each unit has a 16-foot loading platform and railroad siding. The railroad classification yard served by three trunk lines is adjacent to the terminals, flanked by a 4-lane concrete highway.

Already under full steam at the port terminals is a newcomer, a manufacturer of cotton and burlap bags employing 150 workers. The plant, owned by Morgan Bros. of Richmond, has a wide local market

among fertilizer, cement and other industries and later will export to the West Indies, Central and South America. Parker Prints, Inc., new hand-block printer of cotton fabrics, and two other large manufacturers whose names have not been announced have also leased space.

The fact that Charleston harbor, with its 35-foot channel, affords not only a gateway to the world's markets, but importation at small cost of sulphur and salt from the Gulf Coast, mahogany logs from Africa and innumerable basic materials not available locally from all parts of the world, will continue to be a leading factor in influencing manufacturers to locate here.

With more than half of South Carolina's land area covered by forests, one of the first tasks of the Development Board was to make a survey of these resources and the first large new plant to be secured for Charleston was a manufacturer of quality household furniture. When this \$250,000 factory is completed and in full operation it will employ more than 400 skilled and semi-skilled workmen and was the forerunner of other woodworking industries, the last being a producer of wood, canvas and rope products, such as camp stools, swings and porch furniture.

About a tenth of all the red gum in the United States is supplied by South Carolina, and along with walnut, also in large stands, is much in demand in the production of quality furniture of high-grade veneers and plywoods.

Short leaf, long leaf and loblolly pines are in abundance. Loblolly is largely used for newsprint or pulp paper. This field also is especially fertile for turpentine and rosin soap plants, and gives chemical derivatives for paints, varnishes, polishes, germicides. Black gum and red oak will meet the demands of the increasing plastic industry.

Resources of agriculture, chemicals and minerals, both metallic and non-metallic, form an all important factor in Charleston's bid for industrialized expansion. King Cotton invites processors of cottonseed oil, oil cake, meal, hull, linters and plastics.

Deposits spread out along the coastline and all over the state bring clays, kaolin, sand, gravel, stone.

(Continued on page 68)



The wire of a thousand uses . . . specially processed rod . . . cold drawn to exact size . . . furnished with smooth bright polished surface. So diversified are the uses of Johnson's XLO Music Wire that it is furnished in a wide range of sizes—to meet every commercial need—.003" to .200".

JOHNSON STEEL & WIRE CO., INC.
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If your structure or product must resist fire, rust, rot or corrosion, Stonewall board is the answer. Made of imperishable asbestos-cement, this versatile building material has an almost unlimited number of uses—indoors or out!

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Easily worked and handled. Stonewall comes in big, 4' x 8' sheets that are readily sawed, scored, drilled and nailed.

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CHARTERED PROPERTY CASUALTY UNDERWRITERS

Charleston Industrial Board

(Continued from page 66)

granite, limestone, marl, phosphate, sillimanite and many other minerals in inexpensive proximity for high-grade ceramics and chemical productions of many kinds.

Transportation, veritably a "must" for the large manufacturer, decidedly beckons industrialists to Charleston. There are 3 trunkline railroads, 8 bonded motor freight lines, 3 national airlines and one of the best natural harbors in America, only 7 miles from the sea. The maritime commission recently designated the terminal as a port-of-call on 8 foreign trade routes. Charleston is the shortest distance by rail from any Atlantic port to Cincinnati and the great manufacturing belt of the Ohio River valley.

The labor situation is very favorable with skilled, semi-skilled and unskilled native workers available for all types of industries.

There is an abundant supply of cheap hydro-electric power, soft water supply is adequate for all domestic and commercial needs with ample reserve above today's demand.

The climate is friendly the year round with plenty of sunshine, tempered by mild, cool Gulf stream breezes. The average temperature is 67 degrees.

Taxes are kept in line and both city and county expenditures are within appropriations. There is no general sales tax levy or gross receipts tax in the state, and new industries are granted five years' property tax exemption.

The matter of schools, colleges, churches and hospitals is a source of local pride, and clean recreational facilities — excellent flat, sandy beaches, parks and playgrounds, boating, golfing, fishing and hunting are unexcelled anywhere.

New industries brought to Charleston through efforts of the Development Board, augmented by the Industrial Association's building fund, include manufacturers of electrical appliances, playground equipment, veneers and plywoods, dyes, canvas and metal awnings, batteries, concrete products, armatures and motors (rewinding), men's pants, neckties, ladies' house

clothes, underwear, plastic products, processed seafoods and other specialties. Announcement of many other new plants await only the unrestricted flow of new machinery, parts and building materials.

Shreveport's Opportunities

(Continued from page 35)

clock service to all major cities of the country either by direct one-carrier service or by convenient connections.

Shreveport may soon have barge service. For many years the citizens of the Red River Valley have worked to restore navigation to the Red River. A lateral canal plan has been adopted to provide this medium of transportation because navigation could not be maintained without artificial assistance.

The Red River Lateral Canal program has advanced step by step through the years, and in June it was approved by the House of Representatives at Washington, and in July, by the Senate. When signed by the President, only congressional

(Continued on page 69)



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ISN'T ALL YOU GET IN EARLE GEARS

Prompt Deliveries, too!

Large or small, simple or complicated, if your need is for cut to specification gears the place to get them is Earle. You'll get good deliveries and a lot more. You'll get better power transmission; smooth, quiet operation; maximum strength; long service life and all at a price that will help keep your product competitive. Earle cuts gears of all types to specification, in all practical materials and in diameters from inches up to 30 feet. Send us your drawings or specifications for quotation. The Earle Gear and Machine Co., 4719 Stenton Ave., Philadelphia 44, Pa.

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appropriations will be needed before actual construction can start.

The proposed Lateral Canal descends from Shreveport on the right bank of Red River to the Mississippi, using existing waterways, and will be controlled by a series of nine locks which will add another connecting link to the navigable waterways of the nation. Interchangeable barges from the East, Mid-West, Intercoastal, and Gulf Coast all will have access without interchange to this new territory. It is felt by the proponents of this improvement that the project will be available for the use of this territory within the next two to three years.

The labor supply in the Shreveport area is adequate to meet the needs of any reasonable industry, making necessary no importation of workers unless it would be key individuals. The labor in the Shreveport area is primarily native-born American. Labor in the Southwest has been found to be adaptable to new jobs and easy to train for highly skilled occupations.

Through the interconnecting pipe lines of the various companies operating in the tri-state area of Louisiana, Arkansas and Texas, the tremendous natural gas reserves of these states, which exceed 76 trillion cubic feet, are available to consumers in Shreveport. New discoveries are constantly adding to known reserves.

Shreveport is supplied natural gas, with a B. T. U. content of 1,000, from several fields of North Louisiana through an interconnecting system of pipe lines. The production coming from a number of fields and at various depths assures Shreveport of a dependable supply for years to come.

Electric power is plentiful, economical and reliable. The Southwestern Gas & Electric Company which serves Shreveport and the surrounding area has a large generating station at Shreveport and has announced a plan to construct immediately a second large modern plant on Caddo lake just north of the city.

For those with a water problem, Shreveport may be the answer.

Caddo lake, which lies approximately fifteen miles northwest of Shreveport, is the largest single

(Continued on page 70)

AREA OF LEAK	AIR		STEAM		WATER	
Diameter inches	Number of cubic feet per month at 75 lb. pressure	Total cost of waste per month 11¢ per 1000 cubic feet	Pounds, leaked per month at 160 lb. pressure	Total cost of waste per month 65¢ per 1000 lb.	Gallons wasted per month at 60 lb. pressure	Total cost of waste per month 14¢ per 1000 gallons
1/2"	13,468,000	\$1,481.44	1,219,280	\$792.53	1,524,100	\$243.86
3/8"	7,558,500	831.44	684,290	444.79	855,360	136.86
1/4"	3,366,990	370.37	304,820	198.13	381,020	60.96
1/8"	824,570	90.70	74,650	48.52	93,310	14.93
1/16"	213,000	23.43	19,280	12.53	24,110	3.86
1/32"	52,910	5.82	4,790	3.11	5,990	.96



What does it cost you each month *for air, steam, water, you never use?*



Fig. 1640
"King Clip" Gate



Fig. 16-P
Bronze Globe

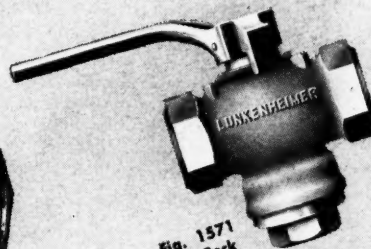


Fig. 1571
Air Cock

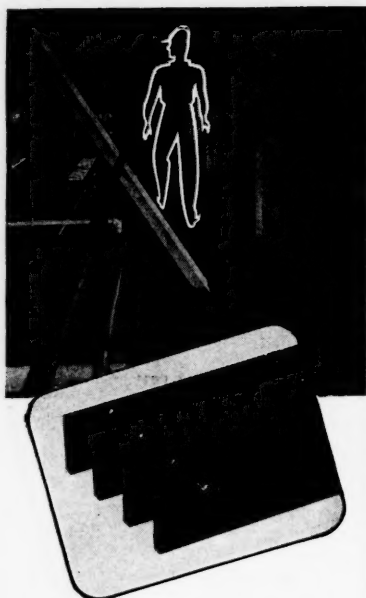
Maybe you've never checked the actual cost of valve leakage. If you haven't, you'll doubtless be startled at these figures.

A single valve leak the size of a pinhead can waste enough air in a month to approximate the cost of a new valve. Steam leaks... water leaks... also take a heavy toll if neglected... not to mention the wastage of such a critical item as fuel.

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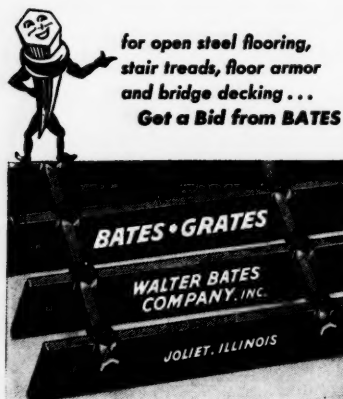


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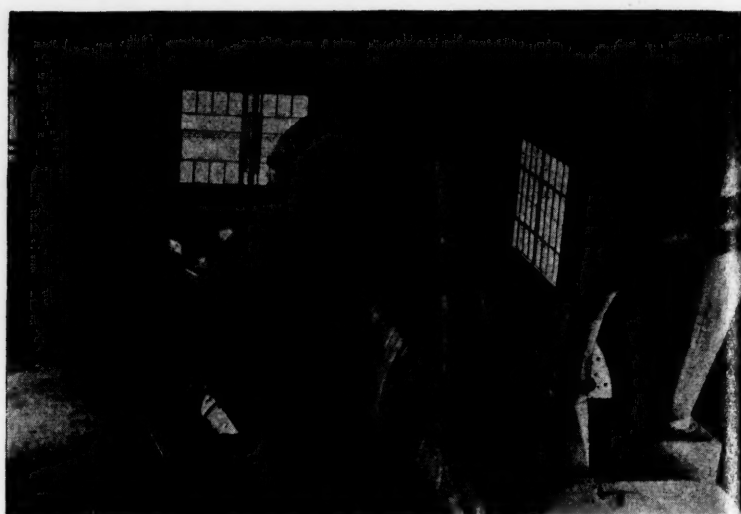
Just as important, note that crisp, clean tread the entire length of cross bar—a feature you can get only with BATES Hex Cross Bar construction.

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and bridge decking ...
Get a Bid from BATES*

Below—Dehydration at Shreveport plant of J. B. Beaird Co., Inc.



Shreveport's Opportunities

(Continued from page 69)

source of surface water for industrial use. This lake covers approximately 40,000 acres and is capable of furnishing in excess of 50,000,000 gallons per day. Total dissolved solids will vary from 185 to 200 p.p.m. Total hardness is less than 35 p.p.m.

Cross lake is the second largest source. This lake, which bounds Shreveport on the northwest, covers approximately 10,000 acres. Water from this lake supplies the city of Shreveport. Sufficient capacity exists to supply a large industrial user an amount in excess of 10,000,000 gallons per day. Total dissolved solids in this water will range around 100 p.p.m. Several other lakes add to the supply.

Shreveport is the natural distribution center of the richest market area in the Central South and Southwest. A five-state market can be served from Shreveport with virtually all of the principal marketing points in these five states falling within a 300-mile radius. Within this radius a total in excess of 11,000,000 people reside.

Greater Shreveport is the distribution point of the Ark-La-Tex. The Ark-La-Tex consists of an area of approximately 100 miles in radius surrounding Shreveport. It contains parts of the states of Arkansas, Louisiana, and Texas. Hence, the name Ark-La-Tex. Within this area reside nearly 2,000,000 people with

an effective purchasing power of approximately \$1,000,000,000.

Approximately 36,000 oil and gas wells are now in operation in the Ark-La-Tex area, of which Shreveport is the center. Reserves amount to trillions of cubic feet of gas and millions of barrels of oil.

In addition to being a fuel, natural gas contains the basic ingredients for many chemical industries, such as nitrogen, methane, ethane, butane, phenol, and others. Oil presently finds its greatest use in this area in the production of gasoline, greases, lubricating oils, fuel oil, diesel fuel, medicinal oils, insecticides, cosmetics, solvents, synthetic rubber, plastics, and a great many related products.

Forest reserves within a 100-mile radius of Shreveport total 25,289,300,000 board feet. Within an additional fifty-mile radius, reserves are increased to a total of 44 billion board feet.

Within this area there is an excess of twenty-five million acres of productive forest land. The forest increment of per average acre is .54 cords. Thus, on the above acreage, an annual growth of about fourteen million cords will occur. Of this amount, slightly over five million cords will be in the hardwood species and almost nine million cords in the pine species.

Pulpwood reserves within a 100-

(Continued on page 72)

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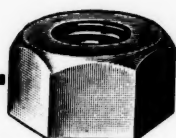


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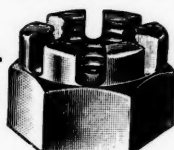
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Shreveport's Opportunities

(Continued from page 70)

mile radius of Shreveport amount to slightly over 137,000,000 cords of which approximately 67 percent consists of pine and thirty-three of pulping hardwoods.

Throughout the Shreveport area there is a characteristic red and blue clay bed varying in thickness from one to ten feet. This bed is found at almost all locations through the area. Sometimes it occurs as an outcrop on the surface, but for the most part it is overlain by a thin stratum of blue clay weathered yellow. This clay burns to a cream, yellow, buff, red, brown or bluish black, according to the iron content and the condition of firing.

Louisiana is the fourth largest salt-producing state in the United States. The salt reserves in Louisiana are, for all practical purposes, inexhaustible. Of the 75 known salt domes in the state, only six are producing salt. The available reserves in these six domes alone have hardly been touched. There is an active

mine within 100 miles of Shreveport.

Sulphur is available to this city by overnight service from the large sulphur deposits in southern Louisiana and southern Texas, where 85 percent of the nation's supply is located.

The climate of this Southwest area affords a long growing season, and the soil is conducive to a variety of crops. The farmer is the Southwest is rapidly getting away from the one-crop program and is diversifying in crops that have possibilities for plastics, dehydrated foods, livestock feed and other uses. Products produced include cotton, peanuts, soy beans, alfalfa, sweet potatoes, oats, and many others. Chemical industries would find it easy to develop other crops here, such as castor beans and fibre plants, that would lend themselves to fabrication of products.

Livestock production (both cattle and hogs) is increasing rapidly and creates a need for larger markets and an expansion in those processing industries that are dependent on

these products.

The principal source of limestone in the state is at Winnfield, approximately 50 miles south of Shreveport. In this pit rock is mined by the open-pit method. The limestone is highly fractured and finds its principal usage in chemical plants.

Outcrops of lignite are evident in quantity at Mansfield, Louisiana, approximately 40 miles south of Shreveport. Sand and gravel for construction purposes are available in the Red River bed within the corporate limits of Shreveport. Other sources occur in the surrounding parishes in commercial quantities.

Resources from basic industries include:

1. Sulphuric and muriatic acid—These products are manufactured by a Shreveport concern of considerable size.

2. Lumber—Within a 100-mile radius of Shreveport there were approximately 900 saw mills of various sizes in operation in 1942. The major portion of these mills are still active. Several large mills operate within and immediately adjacent to Shreveport. The headquarters and principal operation of one of the large lumber companies in the South is in Shreveport. The principal types of lumber available are pine, gum and oak.

3. Cottonseed Oil—Two cottonseed oil crushing plants operate in Shreveport. The annual production of cottonseed oil from these mills amounts to approximately 1,600,000 gallons. At present this oil is shipped to outside sources for processing.

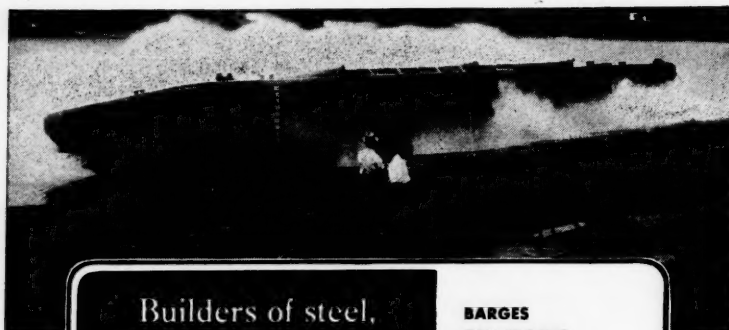
4. Animal Fat—Three rendering plants operate in Shreveport processing animal fats. The annual production of these concerns is slightly in excess of 1,000,000 pounds. At the present time all of these fats are sent to plants in other locations for manufacture of soap and related products.

5. Paper and Pulp—Within the Ark-La-Tex area are located 10 large pulp and paper mills manufacturing principally sulphate pulp which is processed into paper and containers.

6. Petroleum, Refinery Products—A number of large refineries operate in the Ark-La-Tex area, several in the immediate Shreveport vicinity. Many products, including such

(Continued on page 74)

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Shreveport's Opportunities

(Continued from page 72)

items as gasoline, fuel oil, diesel oil, oils, insecticides, cosmetics, resins, paint and varnish removers, solvents and others, are available from these refineries.

7. Aluminum—During the war the Aluminum Company of America operated at Lake Catherine, Arkansas, north of Shreveport, a plant producing aluminum from local deposits of bauxite.

8. Ammonia—Two large ammonia plants were constructed in Louisiana and one in South Arkansas during the war. These plants could serve as a foundation for a number of chemical industries.

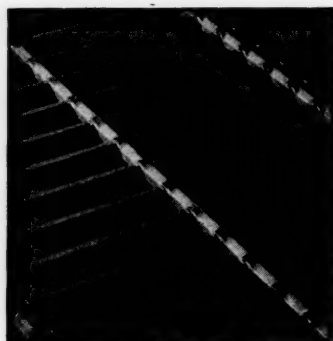
9. Synthetic Rubber—Since 1941 Louisiana's chemical industry has expanded by more than one million dollars. Synthetic rubber plants were erected at Baton Rouge and Lake Charles, south of Shreveport. A number of similar plants were

built along the coast in Southeast Texas. Shreveport is situated strategically to draw a supply from any of these sources.

10. Pig Iron, Coke By-Products, Steel—A blast furnace and coke plant was constructed during the war at Daingerfield, Texas, approximately 80 miles northwest of Shreveport. The furnace has a daily capacity of 1,200 tons of pig iron and the coke ovens a similar capacity of coke. A by-product plant was included with the coke ovens for production of tar, ammonium sulphate, benzol and other light oils. A similar plant was constructed at Houston, Texas, and Birmingham, Alabama, 237 miles and 400 miles from Shreveport respectively.

Principal types of industry in Shreveport consist of metal working, petroleum products, lumber and logging, paper and paper products, food, stone, clay and glass, finished lumber products, apparel and chemicals. There are 217 manufacturing plants in Shreveport.

A 50-page brochure, procurable from the Shreveport Chamber of Commerce, depicts in statistical form, the growth and advantages of the producing and marketing area of which it is an important hub.



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